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Sorgo Department.

Our Future Sugar.

BY PROF. W. O. AYERS.
[CONCLUDED FROM LAST WEEK.]

It is not more than about thirty years ago that the sugar-yielding, or, as they proved to be, the sirup-yielding types of sorghum, were introduced into the United States. This was done with quite a flourish of trumpets, and a promise of good things to come, which, when we look back, we see to have been very unwelcome. The sugar relations of the country were to be revolutionized, so to speak. Every farmer was to have a little mill and a little kettle, and was not only to just quietly cook out his own sugar, but was to supply all his neighbors who might not be quite up to the mark.

These expectations were very naturally not realized, and much disappointment resulted, and almost, as a necessary result, an unjust judgment followed. Public opinion vibrated to the opposite extreme, and the name *sorghum* became a sort of by-word. Still, the plant possesses so much of real value, which even ignorance and unskillful manipulation could not destroy, that its cultivation has not only been continued but very largely increased. This has been most strikingly true in the western and northwestern States, from Ohio to Kansas, and including also Kentucky and Tennessee. Sorghum has received much attention as a farm crop, and has been very profitable. But it has not been as a sugar producer. Attempts to make sugar from it have gradually been abandoned by most of the cultivators, and sirup only has been made, and the extent of this manufacture is shown by the census returns to have been 6,749,123 gallons in 1860, and 16,050,089 gallons in 1870, varying in value from 40 to 65 cents a gallon. And adding the estimate for forage, the sorghum crop has produced to the country about \$8,000,000 per annum. But during all this time sorghum has not produced sugar, that is to any extent. The attempts to cause the sugar to crystallize from the sirup have been failures, and it has been quite a settled conviction that the most that could be expected from sorghum was perhaps a good sirup, and nothing more. This of course would be of value, but sirup is not what the country or the world needs; we must have sugar. And it is only because a new departure has been reached, and a new world, so to speak, opened that we can now talk of "our future sugar" as a thing to merit our earnest and careful attention.

I write with the firm belief that a great, a very great, and radical change is coming, and coming speedily; that instead of depending on the tropical lands and the *saccharum officinarum*—always known as sugar cane—for the sugar, we shall produce it from sorghum grown in our own fields; that not the Gulf States only shall be sugar lands, but that every State of the Union, excepting perhaps the extreme north and northeast, shall produce their own supply, and be ready to export.

This is a mighty work; it indicates, to a certain degree, a revolution in commerce and trade, and you may say that my assertions and my expectations are wild, and I admit that a year ago I should not have dared to write as I write now. But a change has come, and, as Uncle Remus expresses it, "that is what makes I say what I do."

The American Academy of Sciences, at their meeting in 1881, appointed a committee to investigate the "sorghum question." That committee have presented their report, which has just been published as a senate document. It is entitled "Investigation of the Scientific and Economic Relations of the Sorghum Sugar Industry, being a report made in response to a request from the Hon. George B. Loring, U. S. Commissioner of Agriculture." The committee are Prof. Brewer of Yale, Prof. Chandler of Columbia, Prof. Johnson of Yale, Prof. Silliman of Yale, Prof. Smith of the University of Louisville, and Dr. Gideon E. Moore of New York. The results at which they have arrived, and which they detail in their report, they reach from two separate (and yet connected) modes of research and information. The first, and though it does not so directly declare itself to the popular mind, the one which is absolutely essential to all actual and trustworthy progress, is laboratory experiment; the second is actual production in the field, the mill, the boiling house, etc. The first gives the basis for action, the other shows the action and its returns. The first shows what the crop of sorghum, from a given extent of land, ought to yield; the second shows the yield, not in grains and ounces, but in hogsheads, in sugar sent to market and sold at current rates. Where the two methods coincide in their results the conclusion is inevitable; we need have no fear that we shall decide erroneously.

In the matter of the laboratory work credit ought certainly to be given where credit is due. It is to Dr. Peter Collier, formerly chemist to the department of agriculture, that the world is largely indebted for the patient working out of the principles on which depend all the results which to the sorghum industry have been of incalculable value, which have placed it beyond the range of experiment and within the line of solid commercial enter-

prise, for it is scarcely reasonable to call that an experimental working in which a single establishment can send to market, as was done in the season of 1882, more than a thousand barrels of sugar of unexceptionable quality.

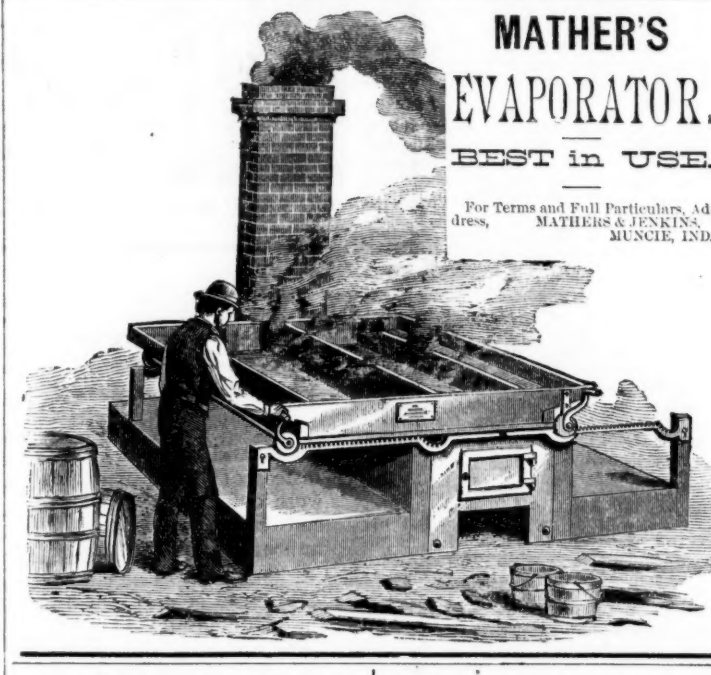
It is true that before these researches of Dr. Collier, sorghum sugar, and of good quality, had been produced in various places, but the product from a given weight of cane, or from a given extent of land, was totally uncertain. It might be successful, it might be a failure, and the laws which influenced the success or the failure were so little understood that they were not subject to our control. In no establishment was it considered that they had settled the rules of practical and successful working. Many were hopeful, but it was only for future improvements. In actual fact, as late as 1880 sorghum sugar-making had no existence in any form which had any prospect of influencing the market of the world, or even of its own vicinity. In 1881 progress was made; the day began to break. But not till the crop of 1882—long will the year be remembered!—was harvested, was it prudent or possible to say that this branch of industry had become a matter of national and of world-wide importance. And I say that to the laboratory work which made this success available due and full credit ought to be given. Before this time no one knew, when a field of sorghum was growing, what might be expected from it. Perhaps some sugar would be secured, (never very much,) and perhaps only a yield of juice, from which not a crystallized pound would be secured, and no one had yet settled the conditions on which success depended. But the time of uncertainty ended.

The report of the committee brings fully to light two facts which the chemical researches have established, and on these two the question hinges: The sorghum must be cut at the right time, and it must be worked with promptness after being cut. This is boiling down the committee's work till it crystallizes as we wish that the sugar should. A great mass or valuable material is embodied, but here is the gist of the whole. It is clearly shown that the juice of the sorghum contains at maturity its maximum of cane sugar, and that the percentage in the best varieties is fully equal to that of Louisiana sugar cane, and can be made practically to yield as much of crystallized sugar. It is further shown that this same crop of sorghum, when cut before maturity, cannot be depended on to afford crystals. It gives a sirup rendered sweet by non-crystallizable sugar contained in the cane, so much disappointment has occurred. It is shown also that where portions of the crop are cut in the immature state they not only fail of themselves to give crystals, but they actually prevent the crystallization of that which the intermingled mature portions were about to yield. Still further, it is shown that even the mature crop may fail, when cut in perfect condition from the singular fact that within twenty-four hours the crystallizable sugar contained in the cane is very largely changed by chemical action into the non-crystallizable form.

From these statements it becomes manifest that our two points are these: First, the sorghum must be allowed to fully mature; second, it must be worked on the day in which it is cut. With these precautions, experience has shown that we may as surely count on the yield of good sugar from sorghum as from sugar cane, and "our future sugar" has this new breadth of field spread out which did not before exist.

We turn now from the laboratory to see what the report shows us of field working, and mill product. Returns from a number of establishments are given, but our space will allow us to refer to only one, that of the Rio Grande Sugar Company, New Jersey, within five or six miles of Cape May. The company had under cultivation in 1882, by actual survey, 1008 acres of sorghum. The committee visited the farm and the works, and they state what they saw personally. "For the week ending the day of our first visit, 656 tons of cane were crushed, yielding 115 barrels of sugar of 88 deg., and 89 barrels of molasses at 47 deg. This first sugar was equal to 63 pounds to the ton of cane crushed." "The full returns for the crop of this year will not be in before the closing of this report. But we are able to state, from a communication of date Nov. 8, 1882, from the president, that the probable results from the season's work, ending with Nov. 11, are as follows: 6,000 tons of cane; 950 barrels, 350 pounds each of first sugar, and 1,100 barrels, 50 gallons each, of molasses." "This committee have received from Mr. Knight, the sugar refiner in Philadelphia, a barrel of this sugar, sample of a lot of 350 barrels refined by him. It ranks, on the independent judgment of experienced grocers to whom we have shown it, as 'C' sugar."

Here is the practical working in bulk in confirmation and in result of the laboratory trials. They both tell one story. We cannot say that the end has come, for very much yet remains to be done. But enough has already been accomplished to settle fully and fairly the fact that sugar, equal in every respect to that from sugar cane can be made from sorghum, that there is no greater uncertainty and no greater skill required in the case than in the other, neither is the expense of production greater; that an acre of land in New Jersey, Ohio, Iowa, will yield as much profit from its sugar and molasses of sorghum, as an acre in Louisiana from its sugar cane.



The case is before us. The conclusions at which we arrive are these: The sugar lands of the United States are no longer confined to our southern borders, they stretch far and wide. Wherever Indian corn can be raised, sorghum can thrive, and its products and profits follow. It is not to be supposed that small proprietors can manufacture sugar to advantage. That is not the case with sugar cane. The business requires skill, and experience, and it can best be carried on with the use of large capital, and the result will doubtless be that as the cultivation of sorghum spreads and increases in the various States under this new impulse, sugar mills will be established in great numbers at such points as the business demands, thus making for the farmer a ready market for his crop of sorghum cane. The law of demand and supply will easily regulate this.

No mention has been made of the value of the sorghum seed as food for animals, though it equals that of Indian corn, nor of the use of the stalks after crushing as a material for paper pulp, for we wished to speak only of the sugar. And the committee's report shows that the assertion which I made is entirely within the limit, and that we will presently cease to import sugar, producing over 2,000,000,000 pounds or more if we need it.

John B. Thoms to B. M. O.

EDITOR OF RURAL WORLD.—In your issue of the 9th inst. I read with interest and care, a letter signed by "B. M. O.". Would like to ask him how many pounds of sugar it requires to make one gallon of sirup, weighing 11 1/2 pounds to the gallon. Also, if he takes 9 pounds of sugar, and mixes it with enough water to make a gallon, how many pounds of sugar can he extract again from the mixture, with his Cook's apparatus? He states that 100 gallons of Amber cane sirup is good for 900 pounds of sugar—he also states that he has sirup, that has 9 pounds out of 11 gone to crystallized sugar. Now to me, the above yield of sugar is unparalleled. Suppose we figure, as practical sugar refiners and planters do, and see what the results will be, taking 100 gallons as a basis—sirup to weigh 11 1/2 pounds to the gallon. To reduce said sirup to what is called green or mush sugar (1 c—the sugar before the sirup is purged from it.) it is necessary to eliminate by evaporation about 16 per cent. The 100 gallons of sirup, weighing 1150 pounds, deducting 16 percent, for evaporation, viz: 184 pounds, leaves 966 pounds of green or mush sugar. Now if "B. M. O." with his Cook's Pan, can get 50 percent, from the 966 pounds of mush sugar, he is doing a good business, or 483 pounds of sugar, from the 100 gallons of sirup. I cannot understand why "B. M. O." will not allow sugar makers the privilege of improving on machinery for sugar making, as well as allow farmers and others to improve on their machinery. I would not consider sugar refiners, to have ordinary intelligence, if they did not make some changes, by way of improving on the method used during the 15th and 16th century. During the 16th century, sugar was made by defecating, clarifying and boiling down over a fire, as at present worked by Cook's, and other open fire pans—all the difference between them now, being in the form of the pans. After "B. M. O." has reduced his juice to sugar, with the above yield, working with Cook's pan, his sugar making ceases, as no more sugar can be extracted from the residuum, by any open boiling pan, where fire is used. He is laboring under a great misapprehension, in regard to vacuum pans. Let me say to him, they are not patented, and have been in use probably about 70 years and more. To show "B. M. O." the advantage the vacuum pan has over Cook's the following can be relied on.

Had the same sirup been boiled in vacuum, the yield would probably have been of the same colored sugar, but with larger crystals (which is preferable) and about 70 per cent, of sugar that is from the first boiling. The sirup from that, reboiled, would yield about 40 per cent.; sirup again from that would yield 15 or 20 per cent. Another advantage the vacuum pan has, one man with an assistant, can boil from 100 to 200,000 lbs. of sugar per day—he can make any quality or sized crystal the market demands, with a few hours' notice. Cane can be ground in the morning, and with the vacuum pan sugar may be shipped to market, the same day. Would like to see B. M. O., with a Cook's apparatus, turning out 50,000 pounds of sugar per day—how many hands would be required? It would be a grand sight. Wherever sugar is made, the vacuum p

is an absolute necessity, and sugar making is by no means a new thing. I have been at it thirty years, and it was very old when I commenced. You have been fighting away with sorghum for the last 25 years, and nothing has been accomplished to make it a staying business till the introduction of vacuum pans, clarifiers, etc. etc. If "B. M. O." would make 5 or 6,000,000 lbs. of sugar in a season, he would probably learn to appreciate their uses. In regard to using sulphur fumes, time and experience has taught sugar and sirup makers, that that or similar agents, is absolutely necessary to prepare the juice, so that it may be properly cleansed with lime, especially the juice from sorghum, as it contains so many more foreign substances than the Southern cane. Did we defecate with lime only, the sirup would be very dark in color—provided we made a good defecation. "B. M. O." no doubt makes a clear, bright sirup by removing the chemical impurities—but he would find by analyzing his sirup, that a great many impurities were in it. He might simmer and skim till doomsday and not make a strictly pure article. Now, in his method of boiling sugar, he has but one way,—boils the sirup until it reaches a certain temperature, then allows Nature to do the balance—whereas with a vacuum pan the sugar boiler watches the symptoms, as it were, and knows how to treat it to bring about best results, as nearly even of treatment—for a medicine change of treatment—for a medicine that will cure me will kill another. A sugar master, who thoroughly understands his business, is obliged some days to change the quantity of lime several times. Praying for your patience on reading this long letter, I am, yours truly, JOHN B. THOMS.

Seasonable Hints.

COL. COLMAN: This township reports nearly 300 acres of cane, and 10 or 12 mills. Of its condition, I cannot give much information beyond my own crop. I have 12 acres of Amber Orange and Link's Hybrid. It is from 2 1/2 to 5 feet high, and looks splendid. Just let me say that it took "elbow grease" to make it look so, some of it having been hoed the second time, besides a liberal use of the cultivator.

Twenty-five years of experience and constant trial have taught me a few things which I will summarize as follows: I don't grind unstripped cane for myself or anybody else. The best place to strip it is in the field with a stick. The cane is beheaded on the load, and the seed always fed to my cows, hogs, and some to the horses. Nothing that I ever fed makes a richer cream or more pork. I make it my business to go into the field and select seed from the best canes, spread the seed out in a dry place to cure, and tie in bunches and hang to vines attached to the rafters of my factory. If given.

The use of unpainted wood anywhere where sorghum juice can come in contact with it, is a greater abomination than the use of wooden buckets in a dairy. I visited all the manufacturers

in this section last fall, and saw juice receivers and strainers that were nothing but vinegar machines, and I heard of some of the sirup that had a working force of 50 lbs. to the square inch. Not one of these men used lime and not one would subscribe for the RURAL.

I have tried almost every imaginable form of filtering, settling, and defecation of sorghum juice, and have settled upon the following plan: The juice will pass through a wire strainer, thence through a pipe and downward to the bottom of a filter arranged with a false bottom and packed with a layer of clean straw or hay covered with sand. The juice will filter upward through this, and flow out nearer the top of the can or cask into settling tanks where I temper with milk of lime, and draw off into the evaporator with swing pipes.

Now if this is not too long, I would like to give a few of my ideas about mills and pans. For a two-horse outfit, get a first-class horizontal mill weighing not less than 2,000 lbs., and if it weighs 3,000 it won't do any harm. Have the sweep not less than 14 or 15 feet long, so as to give plenty of power, and then, with the mill slightly open, crank in the cane until it comes out like pulp. I saw a mill run like this and it made my eyes bulge out to see it chew up cane. I like the covered evaporators far the best. A cover can be fitted to almost any kind of a pan.

We have had fine harvest weather. Wheat and oats are excellent in this vicinity; corn varies according to location and culture. Mine is 7 to 9 feet high. Yours truly, H. V. N. Tonganoxie, Kansas.

Mather's Evaporator.

We present on this page an illustration of the Mather's Evaporator, made by Mather and Jenkins of Muncie, Indiana. It has many claims to public favor, among which are simplicity of construction, the ease with which it can be worked, and the quality of sirup made on it.

One person can operate it with ease. It is made double, each department being 2 1/2 ft. wide, 7 1/2 ft. long. While one is on the furnace boiling and being skimmed, the other may be washed, and refilled with juice and be ready for the furnace when the other is ready to go off. As the juice boils the scum flows over the "strainer" on the side of the Evaporator, which catches anything that may be in it, and may be easily skimmed off leaving the molasses perfectly clean. Its capacity is from 40 to 60 gallons a day.

A farmer who has used it says: I have been using it for the last five years, and have made from 500 to 1,500 gallons each year, all of which I have made for my neighbors, and in every case has given satisfaction. Cane is hauled to my mill five and six miles. I have had many bids from merchants and grocery men of this county for molasses, but my supply has always been disposed of at the mills at 50 cents per gallon. I manufactured 1,400 gallons in 1882, at 25 cents per gallon. I can make clearer and thicker molasses, without burning, and clearer of any green sorghum taste, than can be made on any other Evaporator, and any person can learn to do as well in a very short time. I do not use chemicals of any kind.

The inventor has been a farmer all his life, and has devoted much time to cane culture and the manufacture of sirup.

Cultivating and Making Up.

COL. COLMAN: I have been in the cane business for over twenty years, and will give you my ideas of raising and harvesting cane. I think it should be planted about the first of May, the ground plowed very deep and planted as soon as possible. I usually plant three feet apart in rows, about twenty inches the other way, cultivate with a small one-horse cultivator; after the first use a larger one; cultivate four or five times, hoe once, (twice if necessary); this year I have hilled up with a potato plow. I use a lath to strip with; usually top before cutting; do not walk backwards to top by any means. Last year I cut about an acre before topping, laid it in sawhorses; one man bound it with two bands, then he cut the tops off with a corn knife. I liked that way very well. When I had cut it to the mill I laid it on poles with stone under them to keep the cane up from the ground. In laying the bundles was careful not to let them touch each other, then cross in the same way so as to let the air pass freely through the cane pile, then covered the whole with bagasse. Cane piled in that way will keep for weeks without spoiling. I use a horizontal mill run by horse power, take the cane from the pile to the mill on three wheel carts, feed directly from the cart into the mill without a feed table. The mill takes in sixteen feed every round of the horses; use fourteen feed sweeps, one horse on a sweep, use two two horses, have a dump cart to haul the bagasse off on drawn by one horse. Strain the sap three times before it goes into the pan, once through a filter-box up through clean hay or straw to get the sand and dirt out. I use a Cook pan; and have for the last seven years, have a back pan in the rear of the Cook pan with a return flue, makes a flue twenty-five feet flue in all, with a twenty feet brick chimney; my building

is twenty by thirty, frame; ten feet posts, sets up three feet, have no floor, half roof on each side, one for wood, the other for molasses; have two cooling vats lined with zinc; screen covers; weigh the most of the molasses. Make mostly for others at two cents a lb., or one-half, if the cane is good, usually make for seventy-five or eighty different persons. One season made 2,250 gallons in twenty-eight days, one day made in eleven hours 110 gallons by weight, eleven lbs. to the gallon; have crushed out 50 gallons of juice in fifteen minutes on a test. It usually takes five hands to run the whole thing, and three horses. I cannot see how some men make so much molasses per day as they tell for, and so much per acre; the best I ever had was one hundred and sixty gallons an acre, that was three feet one way and not over a foot the other way, and but very few hills missed. I have five acres this year, mostly on new land.

L. J. F.

Charles City, Iowa.

From Sterling Kansas.

COL. COLMAN: The cane industry through this country has a better prospect than ever before, more attention has been paid to planting and cultivation of the crop. Much new and improved machinery is being placed in position and more careful preparation is being made for the working of the crop than ever before; and this is not all, the merchants and consumers are more solicitous than ever regarding the supply. I am advised by the Cane Machinery Manufacturers from different parts of the country that they have been crowded with orders, more than the capacity of their works would permit them to fill promptly, and for a heavier and better class of outfits than ever before.

Reports indicate that the crop is later than usual in all parts of the country; with us it is at least 30 days later than we usually expect. The last two weeks have been cool and cloudy with rain every 48 hours, just the weather to make the cane stocky and give the tonnage per acre. From present indications the quality will be fine. We have 600 acres of cane under cultivation, varieties as follows:

Early Amber160 acres.
Wabunsee220 "
Red Liberator100 "
Early Orange80 "
Honduras40 "

The Wabunsee is a new variety, to me being brought to our works in '81. As it came early was much larger than any of our early canes; it attracted our attention as the sirup made from it was equal to that from the Amber. Last season it was carefully tested by us and with very satisfactory results. In general appearance it resembles the Amber, the seed is more black, the plant when it first comes up is much stronger and grows faster, is fully as early as the Amber and does not sucker. The yield per ton is equal and the tonnage per acre 40 per cent greater than Amber. The name is local, it being named for the county that it was brought from by the farmer. We have sufficient planted to thoroughly test its merits (and will report later). We are putting in a new system of evaporation—30,000 lb. crusher made to order by Messrs. J. A. Field & Co. We shall have the cane from 1,000 acres to work; average daily capacity of works, the cane from 15 acres of land. Cane will be ready to commence working about the 20th of this month. To those who use sulphur fumes I have this suggestion to offer: much labor can be saved by burning the brimstone over a kerosene lamp instead of using hot iron, the construction of furnace the same except having earthen vessels for the brimstone, and ventilation for the lamp. Regarding the use of sulphur fumes I have nothing to offer at present.

I should be highly pleased to have you visit me at our works some time in September. About the time of our State fair will be a time when all the works will be in full operation in the Arkansas Valley. A cordial invitation is extended to all interested in the advancement of the Northern cane industry to come and visit us. Yours respectfully,

W. P. CLEMENT.

Sterling, Kansas, 8 August, 1883.

Premiums at the St. Louis Fair.

COL. COLMAN: Will there be a test of cane mills and manufacture of sirup on the St. Louis Fair Ground, at the coming fair? A. FURNAS.

Danville, Indiana. Undoubtedly the manufacturers will be there to display their mills and also their evaporators. We have heard of no cane being grown for their use as was the case last year. The following are the premiums offered:

Best Sugar manufactured from Sorghum on the grounds of the Association during the Fair.....	\$75
Best Sirup manufactured from Sorghum on the grounds of the Association during the Fair.....	\$75
The following Premiums for Sirup (must be made in the United States during the year 1883) and remains the property of the exhibitor.	
Private Premium by L. M. Rumsey Mfg. Co.	
Best 5 bbls. Sorghum Sirup.....	
1st class 3-roll Cane Mill.	
Private Premium by J. A. Field & Co.	
Best 3 bbls. Sorghum Sirup.....	
Star Cane Mill, value \$100.	

The Shepherd.

On Doing Business.

In the last two numbers of the RURAL WORLD, we have advised our readers of the state of monetary and mercantile affairs in Boston, from which it will be seen that they are in the throes of financial distress, and that many departments of business are seriously embarrassed. The boot and shoe and leather men seem to be suffering the most, but, as suggested two weeks since, when the trouble first developed, other branches sympathizing with them and subject to like causes have also had to succumb; hence, in our last issue the firm of Wright, Wooster & Co., wool dealers, and therefore considered a strong house, was reported under assignment.

In this connection we have two points to make: first that the boot and shoe and leather men are not suffering because of any reduction in the tariff, but are fully protected by a 20 per cent. duty on manufactured goods, and 30 per cent. on foreign leather, that, as their failure is not, and cannot be traced to a reduction of tariff, the woolen interests were not suffering solely, or mainly on that account, is established. Second: that the practice of sending our wool 1,500 miles, to a market, and waiting from three to six months for the money, is, as we have time and again said, too much of a good thing, and as well, unnecessary, uncalled for, and a risky business, whilst we can find a market at home at good prices for cash.

All farm products sell for cash, from the hen's egg to the Shorthorn bull, or, indeed, the farm itself; and cash means cash in hand on a transfer of the property. Will wool growers take warning?

Feeding as an Element of Success.

All animals thrive as they are fed. Plenty of the right kind of food and a good digestion are essential to healthy growth and successful breeding. Without these, the best bred animals degenerate; with them, improvement may be safely counted on. Perfection, it is true, involves other considerations such as coupling, sheltering and general handling, but he who provides an abundance of healthful food for his stock is pretty sure to guard the other points.

Sheep above all other domesticated stock luxuriate and thrive in good pasturage and a change of diet, and the latter is as much an element of success as the former. A change of pasturage in summer is as delightfully appreciated as a mixed diet in winter, and as conducive to contentment and to healthy development.

Nor does this apply to the mature or aged sheep only—indeed, not so much as the young; for high feed and good care from infancy to the first breeding season forms the frame and fixes the digestive powers, and it is from these that quantity of wool, and quality as well as quantity of flesh are formed.

If then the lambs have had abundance during the spring and summer, it is now the duty of the flockmaster to see that he has provided an ample supply for winter, and in sufficient variety to afford nourishment and contentment. This more-over applies to the aged as well as the young. As a contemporary puts it, if we note the bodies of the sheep kept upon barren hills, or where food is scanty, we find them long, thin-bodied, sharp-backed, long-necked, long-headed and long-legged. This is the way nature molds her forms on a meager diet and slow digestion. An expert animal anatomist could, at once, tell the liberality of the diet of the animal by an examination of its skeleton. But if we examine the improved sheep of any breed, we find them compact, round-bodied, broad-backed, short-legged animals, rounded out into grace and beauty by superior alimentation. This improvement might have been very much hastened by selection in breeding, but still, the quality of the improved forms has been skillful feeding, long continued. This increased power of digestion comes of long habit. An animal that has always had scanty food has a very limited digestion, and it cannot suddenly be much increased. The food must be increased very gradually, and the stomach increase as gradually in its digestive power.

It will thus be seen that skillful feeding is the true basis of improving the flock in form. The effect of poor feeding upon the improved Leicester and Corriedale sheep has often been seen, and the deterioration is much more rapid than the improvement had ever been. The flock-owner must, therefore, always regard it as a great misfortune that his flock should be reduced to a scanty ration, even for a short time. No prudent flock owner can afford to economize on the food of his flock; trying to save on their necessary food is simply reckless waste.

The fecundity of the flock can be increased by using a ram from a more fertile breed. When the Cotswold, Leicester, Southdown ram is used to improve the common sheep, the result is to increase the fertility of the next generation. It is also easy to increase fecundity by selections in the same flock. Breeding will rapidly increase the percentage of lambs from a flock; and this is an item of great importance in a flock used for breeding early lambs. The percentage of lambs from the Merino is usually estimated at 60 to 80 per cent., while in the mutton breeds it is from 100 to 130 per cent. This difference makes a large difference in the profit. The flock owner should study every item, and diligently make the most of it.

The best digestion produces the best growth of body from a given amount of food, and the power of digestion is increased in several ways. First, by the proper selection of foods. A mixture of grasses is nature's prescription of food for the sheep, as well as other grass-eating animals. This mixture of grasses contains all the elements, in precisely the right proportion, and, when in full supply, cannot be improved upon. When other food must be given, it should be of a varied character, in imitation of the grasses. The sheep has a strong craving for variety in food, and should be indulged. It is always a strong recommendation of a food that it is palatable—that the animal eats it with pleasure. This is an element of digestibility.

Bothwell to Fink.

COL. COLMAN: I have neither time nor disposition to answer every one that differs from me on the origin of our best sheep. But for fear some one may be misled, I will answer Mr. Fink briefly. He is right in saying the little black top Merinos of Ohio 30 years ago were free from wrinkles, small in size, low carriage, very white wool inside, and should have added they had no wool on their legs and heads, and precious little on their bellies. The rams sheared from 6 to 9 lbs., ewes from 3 to 4 lbs., and this had been their settled type for the 45 years they had been in the United States, but what a wonderful change in the last 30 years since the importation of French sheep. What do we see now at our fairs and public shearings? Rams with wrinkles from their nose to tail, large bone, have wool all over head and legs, wool nearly always of an orange or buff color, sometimes even a saffron, frequently heavy on neck and thighs, and shearing from 25 to 30 lbs. of wool, almost perfect models of the best French sheep imported. Don't Randle speak in the highest terms of the best French sheep? It was the grades crossed with the coarse sheep of France and brought to the United States that were so ungainly and made them unpopular in Ohio where some of them were taken. I could give scores of testimonies to prove the above, but will submit but one, Mr. Solomon Jewett, a man that imported over 100 of those French sheep some 35 years since.

G. B. BOTHWELL.

He writes as follows: It is my opinion there is not a pure Spanish sheep in Vermont, originally from the one importation from which Mr. Atwood and Blacklee selected their stock from in the start, and there is evidently French blood in every large sized and complete woolled Merino with heavy folds now extant in the United States. A good judge of Merino sheep need not be swindled if he has the animal before him.

SOLOMON W. JEWETT.
Shepherd's Home, Rutland, Vt.

Shade and Change of Pasture for Sheep.

The tenth census (1880) gives 42,192,074 as the number of sheep in the United States, exclusive of spring lambs, yielding an aggregate of 140,681,751 pounds of wool. Ohio leads with nearly five millions, and California stands second, having over four million sheep. Texas is third with about two and a half millions; Michigan ranks fourth, closely followed in their order by New Mexico, Pennsylvania, New York, Missouri, Wisconsin, Indiana, Oregon, Illinois and Kentucky; all of which have over a million head of sheep. The vastness and importance of the sheep industry is indicated by the above figures.

A few spreading trees in a pasture add to the beauty of the field, and furnish a shade that is most acceptable to the flock on a hot summer day. After feeding through the long morning, the sheep may gather in the cool shade to rest and ruminate, until the scorching rays of noon-time are replaced by the less intense ones of early evening. The stream of pure water near by adds one of the most essential elements in a well-equipped pasture. Contrast the view of this shady brook with that of newly-sheared sheep huddled together in a bare field, trying in vain to shield each other from the scorching sun, and without a drop of water within their reach!

Sheep thrive best with a change of pasture. If there are two fields devoted to the flock, it is best to let the stock feed alternately upon them, thus giving fresh cropping all the time. In a few days the stock will be as willing to go in the opposite direction, to find the old pasture renewed, and the trees by the brook-side still yielding refreshing shade. All live stock like a change of diet, but none appreciate it more than the close-feeding sheep.

If the work of the draftsman and engraver have the useful effect of encouraging a taste for shady pastures, and a change of feeding ground, their labor of humanity, in itself so selfless, is important to induce us to provide change, shade and water for the flock, that of profit is concerned. Animals will not thrive under conditions which their owners find almost intolerable. It pays well to make the live stock of the farm comfortable.

Virginia Method of Handling Sheep.

Mr. A. Lord, of Greenwich, Va., recently wrote to the *Home and Farm* as follows:

"My sheep are Shropshire Downes, and only lost two lambs this year, which makes 90 lambs born from 71 sheep, or at least from 67 sheep, as four sheep had not lambed the 1st of May. Last year I had 121 lambs from 80 sheep, raising 114. The reason I had not more twins this year I suppose, was that 35 sheep of my flock were two years old with their first lamb. I never allow my sheep to breed until they are at that age (two years), and never keep a sheep older than six years, keeping my best ewe lambs and drafting out the old sheep, which fatten up well for market, bringing me from \$6 to \$8 per head. I think it is a great mistake to keep sheep after six years old, as they begin then to go back in their yield of wool. When I draft my ewes I put them in a separate field, and give them a pint of linseed meal per day, which puts them in prime order. I base all my sheep in winter, and give my personal attention to them, feeding them clover hay as much as they will eat up clean, and a quart and a half of a mixture of oats, cracked corn and bran, in equal proportions, always keeping salt by them, one-quarter of which is sulphur, which I find keeps ticks away.

A Correction.

COL. COLMAN: In a late issue of the RURAL WORLD, Mr. G. B. Bothwell states that the McCulley ewe, shearing about 27 lbs., cleaned 6 lbs. The facts are, ewe Princess No. 9 clipped at Sedalia, 1882, 26 1/2 lbs. When the fleece reached the scowerer and was sorted it weighed 26.05 lbs., cleaned 7 1/2 lbs. and sold for \$5.78 95-100. Mr. Bothwell was as well acquainted with these facts as I am, having a copy of the proceedings of the second annual convention of the Missouri Wool Growers' association in his house and having seen it in print at least one hundred times. Mr. Bothwell also has one of my catalogues in which are contained the same facts.

Respectfully,

R. T. MCCULLEY.

How to Dress a Sheep.

Gen Cassius M. Clay has written an interesting series of articles on breeding and management of sheep, in course of which he gives directions how to slaughter and dress a sheep so as to wholly prevent the rank odor and flavor so often attached to mutton.

First he withholds all food from the animal for full twenty-four hours or more before slaughtering, but give in the meantime all the water it will consume. When ready to slaughter, he has all things in readiness, in order that the job may be accomplished in the shortest time possible, when the sheep is hung by the hind legs and the throat quickly cut, severing all the main arteries at once, and the moment life is extinct the work of disembowelling is accomplished, and the skin taken off in the shortest time possible. The result is meat of the most delicious flavor, without a taint of the rank offensive odor and equally offensive flavor so often accompanying meats of this kind.

He never selects a lamb for delicate meat, but always chooses a full grown sheep, from two to three years old.

Sheep Notes.

Mr. Philo D. Jewett, of Glendale, Mo., left, Thursday of last week, with a car of fine Merino rams for Texas. He will unload part of them at Waco, where they have been sold at \$40; the remainder will be taken to the San Antonio market.

Mr. Samuel Jewett, of Independence, Mo., reports the sale last week of 10 good Merino rams to N. S. Ludwig, Grenola, Kas. He also sold to R. W. Gentry, of Sedalia, Mo., the fine buck lamb, Silver Horn second, whose sire was sold last year to G. A. Horne of San Antonio, Texas, at a handsome figure. Price \$200.

A Vermont sheep raiser says that the best method for doctoring sheep for foot rot is to wet the foot of every sheep in the flock, sound or lame, thoroughly with kerosene or coal oil, and put what sulphur you can take in the thumb and finger between the hoofs of each foot. Keep them in a dry place for twelve hours. Repeat the operation in about two weeks to make sure work.

Mr. Russell, of Horton, England, says the London *Farm and Home*, provides salt as well as water, so that his sheep may have access to it whether the weather be wet or dry. If this were done generally, those wholesale losses which are now suffered would not be experienced. Salt acts as a condiment, and is no doubt an appetizer; but it also does something more in quickening the action of the internal organic system, and preventing the generation of internal parasites.

Sheep shearing is an art that is not easily learned, and the work cannot well be done by machinery, as there can be no guarantee that the sheep will lie still while the operation is being performed. In the far West where sheep are kept by the thousand the demand for shearers is always in excess of the supply. The lack of good shearers is loudly complained of this spring in Texas, and as the clip of wool is light, and prices as low it will lessen the attractions of this industry to those who had imagined that it involved no difficult or disagreeable labor.

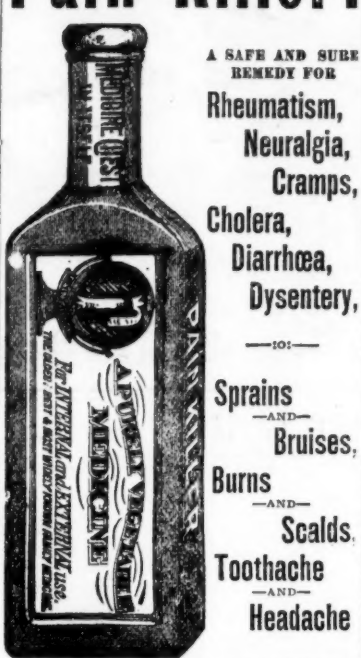
The census returns give 155,000,000 pounds as the amount of wool clipped from 35,000,000 sheep in the United States in the spring of 1880. This shows encouraging progress since 1870, when the reported clip was 100,000,000 pounds from 28,000,000 sheep. Nearly a fourth of the entire production of 1880 is returned from two States namely, Ohio, which is credited with 25,000,000 pounds of wool and 3,000,000 sheep, and California, which shows nearly 17,000,000 pounds of wool and 4,000,000 sheep. In 1870 the clip of California was 11,000,000 pounds, and that of Ohio 20,000,000 pounds.

Hurdle feeding of sheep has its advantages. It may solve the question of fences where a farm is not thoroughly fenced. But in the majority of cases there is not a lack of fences, and hence the hurdle cuts no figure in that respect. But in the matter of saving the pasture, the system is a valuable one. By the use of a hurdle fence, the flock may be kept on a certain area, as long as it is good for the pasture, and moved to another, giving the area before pastured a full opportunity to recover. Mr. Mechi used an iron hurdle on wheels on his farm, and he was enthusiastic in its praise because it lasted him thirty years, but it cost six dollars and fifty cents per yard. But a common wooden hurdle is perhaps the most practical. If it is on wheels, so much the better, but there are movable fences which can be set up with little trouble. Of course the system is practicable only with small flocks.

Every farmer who keeps sheep or raises calves often feels the need of a movable fence, such as is denominated a hurdle by English farmers. Something is needed that can be easily and quickly set up and taken down, or moved from field to another, so as to enclose a field of turnips, a patch of wintergrass or something that the farmer wishes the sheep to consume upon the spot where it grows; or for a temporary fence for many uses upon the farm. The following will answer such purposes: Have a blacksmith make the posts of nail rod, doubled and twisted in such a way that there will be a chance to slip two narrow boards an inch thick between the two parts at such distances apart as is thought necessary to confine the stock intended to fence with it. Then have two braces made of the same material for each post, and get a quantity of iron boards about twelve feet long and four inches wide. The posts can be easily thrust into the ground, and the boards put in place. A brace which should have a hook at the upper end should then be put in place on each side to prevent the wind from swaying it either way. Such a fence can be put up very rapidly, and there is no labor of digging postholes, which are often objectionable where such a fence is wanted, and it can be easily resolved into its original elements of a pile of twelve foot boards and a bundle of iron rods. If packed away carefully when not in use, it may be made to last many years.

ROUGH ON RATS.—Clears out rats, mice, roaches, flies ants, bed-bugs, skunks, chipmunks, gophers. 15c. Druggists.

PERRY DAVIS' Pain-Killer!



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SEEK

health and avoid sickness. Instead of feeling tired and worn out, instead of aches and pains, wouldn't you rather feel fresh and strong?

You can continue feeling miserable and good for nothing, and no one but yourself can find fault, but if you are tired of that kind of life, you can change it if you choose.

How? By getting one bottle of BROWN'S IRON BITTERS, and taking it regularly according to directions.

Mansfield, Ohio, Nov. 26, 1882.
Gentlemen:—I have suffered with pain in my side and back, and great soreness on my breast, with shooting pains all through my body, attended with great weakness, depression of spirits, and loss of appetite. I have taken several different medicines, and was treated by prominent physicians for my liver, kidneys, and spleen, but I got no relief. I thought I would try Brown's Iron Bitters; I have now taken one bottle and a half and am about well—pain in side and back all gone—soreness all out of my breast, and I have a good appetite, and am gaining in strength and flesh. It can justly be called the king of medicines.

JOHN K. ALLENDER.

BROWN'S IRON BITTERS is composed of Iron in soluble form; Cinchona the great tonic, together with other standard remedies, making a remarkable non-alcoholic tonic, which will cure Dyspepsia, Indigestion, Malaria, Weakness, and relieve all Lung and Kidney diseases.

BEATEN BY WIND AND RAIN.

Sailors on the Sea and Laborers on the Land—Help for the Laboring Watch.

"There is no telling the force of the wind; and the height and rush of the sea was simply appalling. When Cornish, the boatswain, and myself came down from aloft, after furling the main-royal, we were wet through and half dead from the toil and exposure." So said the mate of the "Groveview," when relating the incidents of an Atlantic cyclone, after nearly all the crew had mutilated and left the ship in boats to escape punishment. Mechanics who labor upon lofty buildings; carpenters, masons, painters and bricklayers, may be called a kind of shore sailors, and that their numbers are more largely decimated by accident and disease is a marvel. Mr. Jabez Rogers, tuck painter, house painter, etc., of No. 608 Madison street, Chicago, over a pipe and autumn fire, said to your correspondent:

"No, I am only a young man yet—thirty-five, that's all; but the kind of work I do tells on a fellow's looks and constitution. Last spring I was about run down with over-work and exposure. I had to give up doing any work myself, and just made out to oversee my men in a sort of half-and-half way. I thought I was played out for good and all. I was racked with a cough, stifled with a cold, and torn and disabled with Rheumatism. Do? I took PARKER'S GINGER Tonic and it cured me. Those three words tell the story—it cured me."

To all persons subject to risk from exposure, PARKER'S GINGER Tonic will commend itself. It purifies the Blood, melts the torpid Liver to a healthy activity, and opens the pores of the skin. This is the season of outdoor perils to health. Keep the Tonic near you. Price, 50 cents and \$1 a bottle. HISCOX & Co., Chemists, New York.

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RED WHEATS.
Early Michigan, Velvet Chaff, Lancaster, Bearded.
AMBER WHEATS.
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WHITE WHEATS.
Tappanahock, White Chaff, Clawson, Red Chaff.
Fall Barley, Seed Rye, Red Rust Proof Oats.
GRASS SEED—Timothy, Clover, Red Top, Blue Grass, Orchard Grass, Hemp Seed.

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Before purchasing your seed wheat for 1883, send at once for my illustrated circular describing the Martin Amber, Landreth White and Tuscan Island Mediterranean, the three most wonderful yielding wheats in the U. S. Inducements Address: E. P. CLOUD, Kennett Square, Penna.

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Horticultural.

Names of Societies Wanted.

COL. COLMAN: I am desirous of getting a list of all the Horticultural societies in the State, and of the Fair associations as well. Will you please urge them to send me a list of officers and place of meeting. Prospect for apples not flatter, about forty per cent of a crop; will be a good demand for all we have.

L. A. GOODMAN,
Sec'y State Hort. Society,
Westport, Mo., Aug. 6th, 1883.

REMARKS.—All right. This will give every society an opportunity of addressing you.

Arkansas Letter on Fruit Matters.

COL. COLMAN: Without one heart-beat of un-charity, or one pen-stroke of controversy, under the broad heaven that overarches us all, I can say one word on this topic of St. Louis fruit supply, from this yet comparatively young Arkansas.—Arkansas with her genial climate, her prodigious territory, and undisputed possibilities. As to the fruit growers of this great State, of course they are multiplying in number, and also sharpening in intelligence, it would be no unusual result of some conflict with adversity, or even anguish from disappointment. Of the latter I can at least speak from experience. From certain checks and drawbacks, it would be singular enough if we did not learn some lesson of watchfulness and caution.

But let me say right here in advance, that I think, as fruit-growers, we are inclined to exercise what may be called an honorable and even a noble faith in the integrity of our brethren the commission merchants, at the other end of the line. Such faith is surely honorable to him by whom, and to him toward whom it is exercised; it is honorable and it is also agreeable, and it is only when such confidence is wronged by unfaithfulness that it becomes sensitive, apprehensive, and finally utterly impossible to be established. I believe that in the St. Louis commission merchants as a body, we are bound to exercise as much confidence as in any other class of business men. That is my individual opinion. Yet with great reluctance I am forced to admit there may be exceptions.

Let me cite you an instance. In the first place, there came down into this country, last April, I think, an assumed agent or representative of a St. Louis house. He left no stencil plates but he begged the public patronage. He was, in straw, a friend of mine, a very estimable man, concluded to send him a case or two of berries, and though he has waited patiently for three months, I believe he has never heard from those berries. Clearly the man was an impostor and a scamp. In fact he was no commission merchant at all, unless he had a commission from the Evil One to do inquiry. But counting out this robber and adventurer—I am sorry to be obliged to mention another case of real mystery in the case of a bona-fide commission merchant. I do so without wishing to pronounce unjust or hasty judgment. Four gentlemen sent each a lot of tomatoes by express, on the same day, by the same train, and they were reported sold at a figure astonishingly below the market rate, and what was stranger still, further shipments were recommended by freight and not express, on account of the depreciation in price. Yet prices were really unchanged as reports for two weeks or nearly, continued to show, thereafter. Now, was not this a mystery? One thing resulted from this experience—this—that commission merchant has lost the patronage of those growers. It is only an almost inexplicable blindness to simple self-interest that could induce a merchant to allow himself in a piece of culpable carelessness even, to say nothing of a downright injustice to his established or even casual patrons. Hence we are constrained by the self-evident certainty of its positively suicidal result, to discredit a charge of over-reaching or dishonesty on the part of one established houses, whose character for veracity and promptitude is well and generally recognized. In short, it is a simple inconsistency in itself. When, in any particular case, any thing like crookedness is betrayed its detection involves a detriment to the merchant, which of all men, he ought to know he cannot afford.

Undoubtedly, the commission merchant has difficulties and embarrassments of a serious kind at times, yet I must believe he will be very slow to do any conscious or voluntary injustice to his friends, the fruit-growers of the rural end of the line. And I am anxious and willing to believe that as a body, the merchants are as honorable as business men in other departments, apart even from motives of mere policy and self-interest. At the same time, the fruit-growers have both natural rights, and some special hardships also. Of these latter I happen to have some personal and positive knowledge. I am sorry to say, to be compelled to say, that there are dishonest and extortionate men, wholly outside of the city limits, and that I have been pained and chagrined to meet the meanness and selfishness that at least occasionally, picture their deformity on the mental retina—and not only that—but inflict positive injury as much on the perpetrators as the victim. It is simply conscienceless selfishness—that is the whole of it. Yes, sir, the honest fruit-grower has trouble enough, partly from inexperience often times, and then again, from frost, wet, worms, rot, drought, and over-stocked or rapidly falling market, etc. And then again, I must certainly say and emphatically, that a serious discouragement to all fruit-growers, is the high rate demanded for transportation by express. This heavy charge, is a great discouragement to shippers, and during a part of the shipping period comes within an ace of acting as an embargo. It is in vain that we have pleaded for a reduction, the high controlling powers meet us with a negative. Only as the market prices dwindle so as to threaten an absolute cessation of shipments, do these lofty rates begin to lower and relax their dignity, and moderate their highness. Can we hope for humanity and reason to so govern in this matter of a tariff of charges, as to enable the struggling fruit-grower to continue and enlarge his area of operations? If in the foregoing, I have in the least misrepresented, I am cheerfully open to correction.

Our location is one very favorable to fruit-growing, and not only so, but one of the very best in the world for manu-

factures. Men of capital, desirous of a good location, would be fortunate indeed, if they could find a more promising opportunity for investment. I wish to emphasize a few industries, such as the manufacture of leather, of cotton cloth, cotton seed oil, barrels, wagons, and canned goods. Besides, we need a flouring mill, and then again we have in our neighborhood, abundance of the heaviest and richest iron ore. What man, or men of means, will see and seize their opportunity? And not only iron ore, but kaolin and gypsum, are here.

St. Louis is certainly interested in the developments of these interests and industries. We are tributary to St. Louis. Some one will be likely to discover the fact of our hitherto concealed resources, and profit immensely by it. This part of Arkansas is susceptible of easily becoming a great manufacturing center. We earnestly ask the attention of gentlemen seeking a field for profitable outlay, to look at this fact of our heavy iron ore deposits, and other most powerful inducements to enterprise and pecuniary investment.

C. COLGROVE,
Nevada Co., Ark., Aug. 6, 1883.

Tree Agents.

EDITOR RURAL WORLD: It was my good fortune to hear what you said about "tree agents" at the session of the Nurserymen's Association, held in your beautiful city of St. Louis. I have also, in a late issue of your excellent paper, read Mr. W. R. Wright's statement in regard to fraudulent tree agents, all of which may be very true. But who makes the winding agents so often complained of, is the question I wish to bring before the tree-planting public? Soliciting orders for nursery stock, when honestly done, is one of the most honorable callings a man can engage in.

The work of the tree agent is largely a missionary work, beautifying and improving rural homes, causing trees, fruits and flowers to grow where none grew before, elevating and developing the good traits of humanity, by strengthening home ties, and thus making permanent citizens of people who would otherwise be wandering nomads.

No nurseryman can exist or do an extensive business without the aid, either directly or indirectly, of the tree agent. I have before me price lists of nurserymen who boast of not employing agents, yet their wholesale prices are extensively circulated among nurserymen and dealers who do employ agents, and thus furnish a market for their surplus stock. To those who do not. Nearly the whole business of our country is now done through the medium of traveling agents and salesmen. This vast army of traveling men are non-producers, and are the farmers' best friends, for they create a market for the farmers' surplus produce.

Withdraw the army from the field, and national ruin and bankruptcy would at once follow. In this progressive age we have long since passed the period of stage coaches and reaper-hooks, when men would sit still and wait for the wagon. We now find the sharp lash of competition, wielded by steam power and electricity, driving men on and out, to secure their share of the trade.

The epithet "Tree Pedler," as generally applied to men selling fruit trees does great injustice to a great many worthy and honorable men. The farmer, like the nurseryman, not being able to sell his surplus products at home, must either go himself, or send a man to such a market and sell his grain, butter, eggs, etc., yet who would dare insult that farmer by calling him a wheat, butter or egg pedler. That there are misrepresen-tatives and frauds in the fruit business, no one doubts. In selling nursery stock, it is true, the man who humbugs the most, sells the most; but whose fault is it? The work of the fraudulent tree agent, representing any of our responsible nurserymen, could be detected and exposed at any time, by dropping a penny card to the firm so represented. As long as people like to be humbugged, and are willing to pay for it, we see no way to remedy the evil. The honest agent in offering to sell the Ben Davis, Jenet, or other well established and popular varieties of fruit at a fair price, is often unceremoniously "fired" out as a "tree pedler," while the fraudulent humbug, representing some unheard of monstrosities in fruit is feted and sent away with orders representing fabulous prices for these imaginary fruits, which orders are eventually filled with the same Ben Davis and Jenet, the unassuming, honest agent tried to sell at a nominal price.

Some time ago I met a German on the streets in Denver, who, in making his complaint in broken English, said to me: "Next year I bought some trees, the tree dealer, and paid him fifty-four or six dollars, cash money, and they are dead already. I do not care for dem-able dresses, and bear dresses, but dem strawberries, der berrme vas so pig as a pig red apple (spanning a supposed circumference with both hands); have you got dem?" I replied that the Bidwell, Sharpless, and Big Bob were among the largest. "Have you got his picture?" "No sir you will not do, of him. I have got his picture, so pig as a pig red apple, you had not got him." I suggested to my German friend, that he had better take a good horticultural paper. "What ish dot?" he replied. "It is a newspaper that will teach you what to buy and how to plant." "I cares not-ings for him; I would not give one glass of beer for all dem bapers." I give this as a case representing a large number of the so-called tree swindle public. They would not give one dollar for the RURAL WORLD or any other first-class paper, published in the interest of rural development and economy.

There are but few towns or villages in the West but what support from one to a dozen saloons, and some streets in our large cities maintain a score of such places. But it takes a State, or a combination of States, to support one agricultural or horticultural paper. The circulation of rural papers through the agricultural portion of the great West goes with a hop, skip and jump. Where they reach one intelligent farmer or fruit-grower they miss dozens of others who would not read the paper if it was given them. It is the case that the majority of our farmers have no sympathy with their calling, a taste for such reading, and yet call upon the public press to protect them from the work of designing men? How are you, Ed. RURAL, going to protect those who can, but will not read, from the baneful influences of traveling smart-

ness. It is a fact to be deplored, nevertheless true, that sensational reading, preaching, and tree-peddling will knock the moral nurseryman, a professional learned, not assumed, have also traveled and sold trees many a time, and am proud of it. A man desirous to study human nature with all its inconsistencies and varied characteristics, should go out selling trees. He can soon collect enough matter to make a book that would lay the Hoosier Schoolmaster in the shade.

We could ourselves contribute a few fallen leaves from a "tree agent's life," collected in our missionary work, while traveling over the fertile West, preaching, "Plainsman, plant a tree." No class of men have done more for our country than the enterprising nurserymen, none are more honorable or more careful of their reputation; for in this, as in other branches of business, lies the secret of success. When the farmer, merchant, or professional man pays a dollar for Concord grapes, and two dollars for Ben Davis apples, under assumed names, nine times out of ten it is his own fault. Such willing victims should never "kick," but repent and be posted.

D. S. GRIMES.

Denver, Col.

REMARKS.—If you can spare the time we shall be very glad to have you send us the few fallen leaves from a tree agent's life. We know they would be interesting and profitable reading.

The Crimson Beauty Raspberry.

COL. COLMAN: I have nothing to do with the controversy going on about the above fruit, but will give an account of its doing here.

Having obtained a few plants from Dr. Stayman, last spring a year ago, I had it fruiting this season in its usual time. The plants are hardy, not having been hurt by the past severe winter. Fairly productive, fruit large, beautiful, and of the very finest quality. May not be firm enough for distant carriage, but superb for home market. And now, Aug. 4th, there are numerous young canes with ripe and green fruit or white others are in blossom. Whether this is its general character or not I do not know. Stayman No. 2 and Scarlet Gem are not much behind it; No. 2 in fact is its equal, in my opinion. All these are bearing a fair crop just now.

If you have not got these in your grounds, and desire a few, you need only say so and they will be sent at the proper time. Yours ever,

SAMUEL MILLER.

Bluffton, Mo.

REMARKS.—Thank you. We shall be pleased to give them a trial.

Fruit and Other Crops in Southern Illinois.

Mr. B. F. Johnson, the Illinois correspondent of the Country Gentleman and several other of the best agricultural papers of the country, made a call at our office on Wednesday, after having run through many of the counties of Illinois, from Champaign south to Anna, in that county, thence through a portion of Union, Jackson, Randolph, Monroe, and St. Clair to this city, with a view to ascertaining the truth about the crops. He reports as the result of his observations, corn poor, and the country drouthy from Mattoon south to Carbondale; apples an unusually big crop from Douglas county on the Illinois Central R. R., south to Carbondale, east to the Indiana line, and west, he thinks, to this city. Corn in the western part of Southern Illinois, he reports good but late, and extra good on the bottoms, where not overtopped by the timber, and not wormy, except at Makanda, where they are reported remarkable both in quality and quantity. Preparations for wheat late, but the promise is that a large acreage will be sown, and a good crop realized, on the old idea that a good crop follows a bad one. He says that in some counties many of the best farmers are alternating wheat with clover, and that he traveled ten miles at a time, seeing nothing but wheat, no corn, no oats, no nothing, but wheat or clover. Mr. Johnson speaks of the country with which he was received throughout Southern Illinois, and especially of that received at the hands of the officers of the St. Louis and Cairo Narrow Gauge Railroad, who cheerfully accorded him every assistance. The general crop of fruit throughout Southern Illinois will be an average for an off year.

Mr. Johnson has been a newspaper correspondent for fully fifteen years, is a man of close observation and of large experience, and is withal a very clever gentleman.

Canning Peas and Fruit.

In canning peas, strong new tin cans should be provided at the outset, with conveniences for soldering. Pick the peas from the vines and shell them. Then place them in sufficient water to cover them, and boil about fifteen minutes; but only cook them once. Now fill the can with peas to within an inch, half-inch or so of the top, and then pour in enough of the liquor or "juice" to fill the can nicely. Solder the can so that it will be air-tight. After making a puncture with a sharp awl in the top of the can, place the cans in a boiler of hot water where they should remain about an hour. But the water should not cover the cans; and in order to prevent it some scraps of broken crockery or blocks of wood might be put in for the cans to rest upon and keep them off the bottom of the boiler. Open the puncture with a needle point, to allow the gas and steam to escape; then seal with a bit of solder and return them to the water to boil a scant two hours more, after which they may be set away for the winter.—*Agricola.*

Some housekeepers have bad luck in keeping fruit in glass jars, owing to an imperfect closing of the jars. I have tried this plan with much success: Upon filling the jars I screw on the covers as closely as possible, and invert the jar upon the kitchen table. If it is not perfectly airtight it will either leak or bubbles will rise to the surface and plainly show the imperfection, before the fruit is cold, when the cover can be tightened or the fruit heated again. By setting them with the tops up, imperfect sealing cannot be detected until fermentation takes place and the fruit is spoiled.—*Corr. Chic. Enterprise.*

MOTHER SWAN'S WORM SYRUP.—Infallible, tasteless, harmless, cathartic; for feverishness, restlessness, worms, constipation. 25c.

Horticultural Notes.

If you take up a grapevine that has been planted over a bed of bones, after a few years, you will find the bones firmly grasped by the roots, and in a decaying condition. From one to three bushes may safely be planted under every pear and apple tree and grapevine.

Prof. J. L. Budd says that the gray worms with green heads, which infest strawberry beds to their great harm, may be destroyed in May by sprinkling with a weak solution of London purple. A slight poisoning of the foliage will destroy them at this stage, and close chemical analysis fails to detect any sign of poison when the fruit is ripe.

Peaches, cherries and pears are usually budded on young stocks, one or two years old, raised from seed for the purpose. Apples are mostly grafted on young stock, sometimes on pieces of roots, called root-grafting. Budding is done when the bark loosens easily, the time depending upon the climate. To graft old trees with good-sized heads, a portion of the branches should be cut well down, and grafts inserted in spring on the stumps; after one year the balance of the tree can be similarly treated.

For mice-gnawed trees a correspondent of the Germantown Telegraph recommends covering the wounds with grafting wax at once, then pile earth and pack it around high above the place to keep covered, as it will settle and wash down some. This, if done early, will save thousands of trees that have been injured by mice and rabbits. Make up of one pound beeswax to four pounds resin and a half pint of linseed oil. If too soft add more resin; if too hard more oil. The wounds must not be neglected till they are hard and dry.

SILK CULTURE.—The American Silk and Fruit Culturist says that "the more we see of the progress of silk culture, the more we are convinced that it will eventually be one of the leading branches of industry in this country. The most intelligent of the agricultural part of the Nation are embarking in it, and, in such hands, it cannot fail of being profitable. But we would give a word of caution to such as are overflowing with enthusiasm in the cause. We would beg of them not to be led astray by false notions of great profits; not to undertake the feeding of a large number of worms unless they have experience, practical experience; but to be careful, prudent, and become convinced by actual experiment."

FEEDING SILKWORMS.—As a rule, the caterpillars should receive steady, light meals, which should be repeated as soon as they are eaten. But, as it is of no use to give a rule which will not be observed, we say it is absolutely necessary to give at least six meals a day at about the following times: The first at 6 a. m. or thereabout, the second at 9 a. m., the third at 11 a. m., the fourth at 2 p. m., the fifth at 6 p. m., and the sixth at 10 p. m. Have the worms which are hatched one day divided from those coming out on the following day, because the oldest ones molt and spin their cocoons first, and if all the worms were not assorted, there would be confusion between those that eat and those that molt, and also those that spin, an affair which brings offense to the worms and annoyance to those already spinning their cocoons.

BEST GRAPE TRELLIS.—A good many years ago, while visiting a friend at West Chester, Pa., I saw a model of training grape vines which I thought would be well worth copying. A large cedar tree, from some cause or other, died. A couple of Concord grapes were planted and allowed to grow up among the branches of the dead tree, the head of which had, however, been thinned out and many branches removed. The vines had complete possession of the whole top, and made one of the most ornamental things I have ever seen. The product of grapes, as stated, seemed to me extraordinary, I think about seven bushels. This is a good way to train vines.

SUGAR AND GLUCOSE.—The humble beet can hold up its head with pride when its sweetness is contrasted with that of the grape. The grape is sweetened with glucose, an ignoble form of sugar which the chemist can make in his laboratory, where its production does not require the employment of costly or rare materials. The sweet juices of the grape can be made from old cotton rags and old newspapers, or from sawdust. But human art has not yet been able to number among its triumphs the production of the sugar of the beet, the maple or the cane. The watermelon has the faculty of manufacturing cane sugar in large quantities; and the apple, peach, strawberry, cherry, and pear have the power of bringing into play a chemistry by which is produced distinct forms of sweets which no art of man can imitate.

WOOD ASHES FOR PEAR AND APPLE TREES.—Those having pear and apple trees which are unproductive, should try the effect of a heavy dose of wood ashes. If a tree is large, three or four bushels will be none too much if spread over a good wide space, so that it may be not more than half an inch in thickness. How much trees will bear around their roots without injury is probably not exactly known. It is recorded that an apple tree which was remarkable for the heavy crops it had borne of very highly colored fruit, received eight bushels of unleached wood ashes as an annual dressing to its roots. This shows that even this large quantity was well employed. While cases of overmanuring may be seen, yet the number of cases where undermanuring takes place are much more plentiful.

SUNDRIES.

Wise's Axle Grease wears longer than any other, because it does not gum.

"Did that lady take umbrage?" said the proprietor of a Harlem store to his clerk, who had just had a wordy dispute with a customer. "Oh! no, she took ten yards of turkey red calico, and wanted the buttons to match."

H. Braun, St. Louis, Mo., says: "Brown's Iron Bitters is giving entire satisfaction to my customers."

"Why must we mourn for vanished light?" asked a poet. It may be owing to the fact that it had been cut off at the meter, because of a failure to pay an old gas bill. It sometimes happens that way.—*Northwestern Herald.*

Explicit directions for every use are given with the Diamond Dyes. For dyeing Mosses, Grasses, Eggs, Ivory, Hair, etc. Only 10 cents.

"Be you good?" asked a bright little chap of Miss Budd, his Sabbath-school teacher, the other day. "Oh! no," was the becoming reply. "You ain't? Well, I knew you wasn't pretty, but I always thought you was good."

"Dr. Benson's Celery and Chamomile Pills, are worth their weight in gold in nervous and sick headache."—Dr. H. H. Schlichter, of Baltimore.

Jeems—"I'm very sorry to hear that Andra Thompson's wife's no well." Jack—"Deed, man, she's in consumption, the doctor says." Jeems—"Puir thing. I's warrant it rins in her family." Jack—"Ay, I believe it is hereditary."—*Glasgow Evening Times.*

Fair Girl Graduates, whose sedentary lives increase those troubles peculiar to women should use Dr. Pierce's "Favorite Prescription," which is an unfailing remedy. Sold by druggists.

A pretty little fairy, who lives in Washington and who is very fond of having Bible stories read to her, ran to her mamma the other day and said, eagerly: "Oh! mamma, please read me that pretty story again about little Moses with the bulls rushing after him!"

U. S. Surgeon Recommends.—Dr. J. M. G. Pheon, is a U. S. Ex-Surgeon, residing now at Bloomington, Ind. The Dr. writes, to say: "I recommend Samaritan Service because it cures epilepsy." Physicians, generally, are its friends.

A witness who had been called to give evidence as to the defendant's character, testified that he had always moved in good society. "What do you mean by good society?" asked the Court. "Society in which it is fashionable to speak evil," promptly answered the witness.

Don't let the system with quinine in the effort to prevent or cure Fever and Ague. Ayer's Ague Cure is a far more potent preventive and remedy, with the advantage of leaving in the body no poison to produce dizziness, deafness, headache and other disorders. The proprietors warrant it.

A Boston lady who had just moved to Chicago complained of her house. A neighbor asked her what the trouble was? "I suffer terribly from insomnia," replied the Boston lady. "Strange!" said the neighbor, "in a new house, too; you'll have to get a trap." She thought insomnia was Bostonese for rats.—*Hotel Mail.*

"Golden Medical Discovery" is warranted to cleanse the blood from all impurities, from whatever cause arising. For Scrofula, Sores of all kinds, Skin and Blood Diseases, its effects are marvelous. Thousands of Testimonials from all parts. Send stamp for pamphlet on Skin Diseases. Address: World's Dispensary Medical Association, Buffalo N. Y.

A story is told of a woman in the rural districts who wanted to keep up appearances, and who was often thwarted in this by her innocent and matter-of-fact daughter. One day, when a visitor was present at the table, the hostess said to her daughter, "Where are all our knives?" "Here they are, both of them" was the astounding reply.

Revelation suggests the idea that from Woman comes the power to "braise the serpent's head." The words take a new meaning to-day since this is precisely what Mrs. Lydia E. Pinkham's Remedies do for the physically diseased patient. Her Vegetable Compound reaches the ultimate sources of the evil. Its action is gentle and noiseless, and it is more powerful than the club of Hercules.—*Bazar.*

Two young fellows stood in front of a billboard the other night intensely perusing the announcement of the Boston Ideal Opera Company. Finally one remarked, "What is the 'Boston Ideal,' anyhow?" The other looked at him half contemptuously for a moment, and replied in a deprecatory tone—"Don't you know what the 'Boston Ideal' is? Why, you nunny, it's baked beans!"

I am the Pastor of the Baptist Church here, and an educated physician. I am not in practice, but am a sole family physician, and advise in many chronic cases. Over a year ago I recommended your Hop Bitters to my invalid wife, who has been under medical treatment of Albany's best physicians several years. She has become thoroughly cured of her various complicated diseases by their use. We both recommend them to our friends many of whom have also been cured of their various ailments by them.—Rev. E. R. Warren, Scipio, N. Y., Dec. 1, 1879.

BUCH-PALMA.—Quick, complete, cure, all annoying Kidney, Bladder and Urinary Diseases. \$1. Druggists.

AYER'S Cherry Pectoral.

No other complaints are so insidious in their attack as those affecting the throat and lungs; and few are so difficult to cure, and so liable to relapse. The ordinary cough or cold, resulting, perhaps, from a trifling and unconscious exposure, is often the beginning of a fatal sickness. AYER'S Cherry Pectoral has well proved its efficacy in a forty years' fight with throat and lung diseases, and should be taken in all cases without delay.

A Terrible Cough Cured.

"In 1857 I took a severe cold, which affected my lungs. I had a terrible cough, and passed nights after night without sleep. The doctors gave me up. I tried AYER'S Cherry Pectoral, which relieved my lungs, induced sleep, and afforded me the most necessary for the recovery of my strength. I was cured in a few days. I am now 62 years old, hale and hearty, and am satisfied your CHERRY PECTORAL saved me. HORACE FAIRBANKS, Rockingham, Vt., July 15, 1882.

"I have used AYER'S Cherry Pectoral in my family for several years, and do not hesitate to pronounce it the most effective remedy for coughs and colds we have ever tried."—J. CRANE, Leeds, England, March 13, 1882.

"I suffered for eight years from Bronchitis, and after trying every remedy I could find, I was cured by the use of AYER'S Cherry Pectoral. JOSEPH WALDEN, Tolland, Conn., April 5, 1882.

No case of an affection of the throat or lungs exists which cannot be greatly relieved by the use of AYER'S Cherry Pectoral, and it will always cure when the disease is not already beyond the control of medicine.

PREPARED BY Dr. J. C. Ayer & Co., Lowell, Mass. Sold by all Druggists.

WELL'S RICHARDSON & CO'S IMPROVED BUTTER COLOR.

A NEW DISCOVERY.

For several years we have furnished the Dairyman of America with an excellent artificial color for butter, so meritorious that it met with great success everywhere receiving the highest and only prizes at both International Dairy Fairs.

By patient and scientific chemical research we have improved in several points, and now offer this new color as the best in the world. It will not color the Buttermilk. It will Not Turn Rancid. It is the Strongest, Brightest and Cheapest Color Made.

And, while prepared in oil, is so compounded that it is impossible for it to become rancid. It is free of all impurities, and of all other oil colors, for they are liable to become rancid and spoil the butter.

If you cannot get the "Improved" write us to know where and how to get it without extra expenses.

WELL'S, RICHARDSON & CO., Rockington, Vt.

\$66 a week in your own town. Terms and \$5 outfit free. Address B. Walker & Co., Portland, Me.

DARBY'S Prophylactic Fluid.

For the prevention and treatment of Diphtheria, Scarlet Fever, Small Pox, Yellow Fever, Malaria, etc.

The free use of the Fluid will do more to arrest and cure these diseases than any known preparation.

DARBY'S PROPHYLACTIC FLUID, A safeguard against all pestilence, infection and epidemic.

Also, as a Gargle for the Throat As a Wash for the Person; And as a Disinfectant for the House.

A CERTAIN REMEDY AGAINST ALL CONTAGIOUS DISEASES.

It neutralizes at once all noxious odors and gases. Destroys the germs of disease and septic (putrescent) floating imperceptible in the air, or such as have taken a lodgement in the throat or on the person.

A certain remedy against all contagious cases.

Perfectly Harmless, used Externally or Internally.

J. H. ZELIN & CO., Proprietors, MANUFACTURING CHEMISTS, PHILA.

Price, 50c per bottle; pint bottles, \$1.

[Continued.] CHAPTER II. wonderful and mysterious curative power is developed which is so varied in its operations that no disease or ill health can possibly exist or resist its power, and yet it is Harmless for the most frail woman, weakest invalid or smallest child to use.

"Patients

For years, and given up by physicians of Bright's and other kidney diseases, liver complaints, severe coughs called consumption, have been cured.

Women gone nearly crazy!

From agony of neuralgia, nervousness, weakness and various diseases peculiar to women.

People drawn out of shape from excruciating pains of Rheumatism.

Scrofula, Rheumatism, Piles, Eczema, Inflammatory and chronic, or suffering from scrofula!

Erysipelas!

Suit round, blood poisoning, dyspepsia, indigestion, and in fact almost all diseases trail Nature is heir to.

Have been cured by Hop Bitters, proof of which can be found in every neighborhood in the known world.

AYER'S Ague Cure

contains an antidote for all malarial disorders which, so far as known, is used in no other remedy. It contains no Quinine, nor any mineral or deleterious substance whatever, and consequently produces no injurious effect upon the constitution, but leaves the system as healthy as it was before the attack.

WE WARRANT AYER'S AGUE CURE to cure every case of Fever and Ague, Intermittent or Quill Fever, Remittent Fever, Dumb Ague, Bilious Fever, and Liver Complaint caused by malaria. In case of failure, after due trial, doctors are authorized, by our circular dated July 1st, 1882, to refund the money.

Dr. J. C. Ayer & Co., Lowell, Mass.

Sold by all Druggists.

DR. WHITTIER, 617 St. Charles St., St. Louis, Mo.,

A regular graduate of two medical colleges, has been long engaged in the Chronic, Nervous, Skin and Blood Diseases than any other physician in St. Louis, as city paper show and all old residents know.

Nervous Prostration, Debility, Mental and Physical Weakness, Malaria, and other affections of the Throat, Skin and Bones, Blood Impurities and Blood Poisoning, Skin Affections, Old Sores and Ulcers, Impediments to Marriage, Rheumatism, Piles, Eczema, attention to causes from overworked brain.

Consultation at office, or by mail, free and invited. A friendly and opinion costs nothing. When it is inconvenient to visit the city for treatment medicines can be sent by mail or express, and the cure guaranteed; where doubt exists it is frankly stated. Office hours, 9 a. m. to 7 p. m.; Sundays, 12 m. to 1 p. m. Pamphlets free.

MARRIAGE GUIDE,

260 PAGES, FINE PLATES.

Elegant cloth and gilt binding. Sealed

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THIRTY-SIXTH YEAR.

BY NORMAN J. COLMAN.

PUBLISHED WEEKLY AT

ONE DOLLAR PER YEAR.

ADVERTISING: 25 cents per line of space; reduction on large or long time advertisements. Address NORMAN J. COLMAN, Publisher, 60 Olive Street, St. Louis, Mo.

(Advertisers will find the RURAL WORLD one of the best advertising mediums of its class in the country. This is the uniform testimony of all who have given it a trial. Many of our largest advertising patrons have used it for more than a quarter of a century, which is the highest possible recommendation of its value as an advertising medium.)

READERS of the RURAL WORLD, writing to or calling upon any one advertising in our columns, will do us a favor if they will say they saw the advertisement in this paper.

READER, look over the eight pages of the RURAL WORLD. Are they not full to overflowing of information valuable to the general farmer, stock breeder, shepherd, horseman or dairyman? It costs you two cents delivered at your own post office. If you value it, please to tell your neighbor so, take his subscription and send it to this office.

FARMS FOR SALE.—We insert advertisements of farms for sale at one dollar a week, when not more than sixty words in length.

It is not worth while to talk of postal telegraphy in this country. There is a cranky touch of communism in the discussion that is attempted. The Government has more to do now than it does well.

THE second large arrival of peaches at New York from Baltimore is reported as occurring last Saturday, comprising fifty-seven car-loads, or about 30,000 baskets. The majority of the fruit is what is known as "Early Norths."

THE Prohibitionists of Ohio have adopted a resolution to observe the second Tuesday in each month as a day of fasting and prayer until after the fall election. It will be observed that our Prohibition friends are terribly in earnest.

As seeding time will soon be here, our farmer friends are admonished to look around for desirable seed wheat. Get the ground in good order, choose sound, plump seed and plenty of it, drill in the wheat with some good fertilizer, and trust to providence for the early and the later rain and a good harvest.

THE proceedings of the third annual convention of the Missouri Wool Growers' association, held at Sedalia on the 4th, 5th and 6th of April last, has just been received from the secretary. By this time it is undoubtedly in the hands of every member of the association and that ought to mean every wool-grower in the State.

THE interest bearing debt of the national government, August 1st, was \$1,338,232,000. Cash in treasury, \$351,536,345. If the cash on hand could be applied on the debt it would bring it to \$987,000,000. In 1866 it was three thousand millions.

THE great exposition now in progress at Louisville would have been impossible twenty-five years ago. The remarkable industrial awakening of the South is unparalleled in its swift development of business methods, executive capacity and strictest fidelity in the young men of that section. These men have within their reach the means of compelling an entire recasting of the manufacturing system of this country.

THE election of a Democratic Governor has not diminished the yield of the land in Kansas. Congressman Ryan, who is now in Washington, and who has been interviewed by a correspondent of the New York Tribune, says: Kansas has produced about 30,000,000 bushels of wheat and will raise about 175,000,000 bushels of corn this year. The oat crop, too, is enormous; I never saw such a field. In fact, all the crops are good. We have had several good years in succession now, and the result is that our people have got clear of debt, and this year will leave them with a nice surplus.

THE Carthage, Mo., Banner has had an interview with Prof. Van Cleave Phillips, hailing from St. Louis, on the manufacturing industries of that enterprising portion of the State, in which we find the following:

Reporter. Could you suggest any undeveloped industries about Carthage?
"Very many." The locality is a very favorable and desirable one for a paper mill. You have a good supply of clear water, and an abundance of straw, and a rapidly growing demand for paper in the southwest. There is no reason why rags should be sent east to be manufactured. Again, your country is highly adapted to the growth of peaches. The soil contains a good portion of iron in which the peach tree flourishes. A company should be organized to plant 40,000 acres of your land in peaches. Plant all seedlings and bud of best varieties. Set them on the hill tops not in valleys. The hills are the basins of moisture. The peaches should be canned as they ripen, with the skins on, and stored properly until autumn, then shipped to St. Paul, Dakota and other northern markets beyond the peach line. Also Carthage is a desirable locality for a starch factory. Glucose works should be a success at your place. Tanneries for fine skins might be successfully operated by using the sumac which grows so profusely on your ridges. Carthage has got the advantage for intelligence and enterprise as well as physically to become a large and prosperous city."

Just why glucose and starch factories are desirable the Prof. does not state, but perhaps because he is more familiar with them than some others we could mention. A perusal of our first page will tell what. There is a grand outcome to these manufacturing industries however, especially in Missouri, where they are by no means numerous; and both starch and glucose are every day articles of utility and demand.

FROM AUSTRALIA.

Mr. John L. Dow, representing the agricultural department of the Melbourne Leader, and his brother T. K. Dow, representing a similar department on the Australasian and Argus, also of Melbourne, visited the office of the RURAL WORLD on Friday last, when on their way west to return home. These gentlemen have spent three months in this country looking into its various farm industries with a view to representing to their readers such improved methods as have occurred in their travels. They appeared to take a warm interest in the successful development of the Northern Grass industry, saying that the sorghum grass was indigenous to Australia, and not only could be successfully cultivated, but ought to be as successfully utilized as here. They took with them a sample of the Champaign sugar which the venerable A. J. Gay, one of the oldest sugar merchants in St. Louis, had in his presence pronounced New Orleans sugar, and could not be persuaded that it was a product of the heretofore despised sorghum, to such perfection has it been brought.

Questioned on the late exportation of Spanish-American sheep to their country, and the object they had in view, they said, our wool is long and fine and our sheep masters aim to breed to your coarser and heavier fleeced rams. It is but an experiment, however, of some few of our younger and most enterprising wool growers; the others will await the outcome, and if it proves advantageous, many will make similar experiments.

They express themselves much pleased with what they have seen and heard in the United States, and will doubtless be able to give their readers many valuable results.

MISSOURI MANUFACTORIES.

How closely the local and the metropolitan newspapers of Missouri are following the lead of the RURAL WORLD in this matter may be seen by the following from a late issue of the St. Louis Republic:

In scores of towns and villages of the state there are manufactories springing up. In one place it is a woolen mill, in another agricultural machine shops, and in another an iron foundry. The growth of the milling industry is quite remarkable. These are all gratifying evidences of increasing prosperity, of advancing culture and augmenting population. These industries spring up in competition with those of older states, with the ripened skill of old and wealthy operators, under the stimulus of home demand and the advantages of a nearer market. They save the cost of carriage of the raw material out and manufactured article in. This, under the wise constitution of the United States, which forbids any state to lay a tariff, is all the "protection" new enterprises in new states can receive, and is sufficient. The growth of capital, the payment of local debts leaving much means to seek new investment will insure the building up and expansion of manufacturing enterprises in places where they have not heretofore been thought of. This sort of investment has but just begun in Missouri. It is a sort of movement which is cumulative. One enterprise begets another. Missouri, for the reason stated, will shortly be studded all over with thrifty manufactories of diversified character.

And the RURAL WORLD is a good paper to follow.

MONEY IN WASTE.

There is sometimes nearly as much money in what we waste as in what we save, if we only knew it, and this pertains perhaps as much to the various farm industries as to any other. In his excellent articles on "Our textile world and how we treat it" published in the RURAL WORLD of the 5th and 12th July last, Maj. Powell reported that he, H. Koelkanbeck, stated that "the annual waste of flax fibre in the western States is astounding: The annual production of flax straw on the total area of flax culture as stated above, is no less than 1,000,000 tons, of which enormous quantity about 200,000 tons at most is worked up into tow for upholstery and bagging, twines and coarse flaxen fabrics, while the remaining 800,000 tons is burned or allowed to rot in the fields. And after presenting his facts and figures he proceeds:

"Summing up the preceding facts and statistical data, we are justified in asserting that the direct and indirect loss caused to our national fortune, through the neglect of flax and hemp cultivation, is no less than \$100,000,000 per annum."

But to take another farm product, let us show how by being utilized to day we are making millions of dollars annually of that which for centuries we have absolutely wasted. There are about 170,000,000 bushels of cotton seed produced in the United States annually, which at the low price of 13 cents per bushel yields the planters over \$22,000,000 a year. It is hardly yet ten years since this article was discovered of value unless as a very common fertilizer, and often not at that, whereas we have now from five to ten mills in each of the cotton states employed in reducing it for various purposes, in which is invested a capital of over \$10,000,000, and affording employment for 25,000 people.

The products consist of food, from the coarse cotton seed cake for cattle to the highly refined condiment of the connoisseur, which is often superior in flavor, color and delicacy to the celebrated olive oil. In domestic economy, it is an important factor. Lard, so long depended upon as a staple, finds a superior substitute in cotton-seed oil prepared for its purposes. In numerous articles of food, the fact of its being purely vegetable recommends it to popular favor. As an illuminating oil its use is growing extensively, and in thousands of mines the crude oil of cotton-seed is burned in place of lard, which finds a greater service in lubrication. Indeed the products of cotton seed may be said to be a boon to humanity, as well as an enricher of the domestic and export trade of America.

Of such value indeed has this heretofore neglected staple been found that Edwin Atkinson, the eminent Boston observer and economist, has expressed the view that people in the north would raise cotton for the seed alone. If the use of the fiber was unknown. But again, it has been pointed out in these pages time and again that western agriculturists were annually impoverishing their land by repeatedly cropping without compensation, or of so replenishing the soil with vital plant food as to nourish and sustain it; whilst hundreds of thousands of tons of the most valuable of manures were

being literally wasted. That this cannot go on forever is as patent as any one thing can be. It is a mistake even to suppose that a pasture cropped by cattle is to any considerable extent compensated therefor by their droppings, for the manure from unhusked stock exposed to cold and wet, is less valuable than from animals carefully stabled with the same feed. Not only is much of the excrement wasted by rains, but it is in itself poorer, the extra food required to keep unsheltered stock warm being absolutely wasted. It has been said that a farm is a permanent investment, that the bottom never falls out of that, and one may securely enjoy it as long as he lives, and leave it to his children, knowing that a thousand years hence the soil will still be returning its generous dividends but it is a grand mistake unless we determine to employ on it not only the skill of good farmers but the intelligence of thinking men.

Waste? Why we waste our straw, our corn, and corn fodder, and our hay, by leaving the corn in the field and turning in the cattle to help themselves through the cold and storms of winter, expecting them to thrive well and improve, and thus pay us for their cultivation on which we had expended a whole year's efforts. We waste everywhere.

Soil Exhaustion—No. 3.

Assuming that I have at least made it probable that tillage crops sold from the farm are a part of a system of farming best calculated for rapid exhaustion of the soil, I propose to suggest a system of farming that I deem better calculated to conserve the fertility of the farm, and yet more profitable than crop sales. Several strong reasons call upon us to make a radical change in our methods. The first one rests in the fact that the products of the state, as a whole, for reasons named, have been reduced to the low average from which no profit is returned. Secondly, because the state and country have reached that degree of development wherein a farmer is warranted, not moved to farm for the future, but broadly calculating what farm management will prove for the highest future good of the family. The time is now at hand when the feet of the restless American farmer will have time to cool, from an abatement of his ceaseless movings. Heretofore we have had some excuse for creaming fat soils, and moving on to new quarters for fresh skimmings. This process breeds indifference to local attachments, and holds us with slight ties to any spot of ground. Hence the motive that induces handmen of older countries to make broad and permanent improvements and to increase the fertility of the farm, have been wanting here. Our first impulse is to rot the soil; and our last to enrich it. We think of our children, but prefer to leave them a fat purse, for we know not whom a fat soil will enrich. The thought would bear pushing further, but I hasten on to make the point that the conditions that breed our first methods of farming, and the ties that bound us so weakly to given homestead, are completely passing away. All the cheap public land that is worth moving onto is now in sight, and the impulse will soon be strong to turn our eyes to the farms we have and to the making of them worthy of inheritance. It is now well known, from the report of a commission sent out by the government to investigate, that substantially all of the best of available public land is now owned by private parties. Maj. Powell reported that beyond the one hundredth parallel that rainfall was too low for successful culture. This is true from this parallel to the Pacific ocean, and covers one-third the area of the whole country. Looking at the map it will be seen that nearly one-third of Kansas, a vast area in Texas, one half of Nebraska, Dakota and Montana, fall within this area. Confirmatory of this statement of Maj. Powell is the last report of the Kansas State Board of Agriculture, which shows that the best of 17 counties, mostly of Western Kansas, have fallen off in population, and the secretary endorses the good sense of those who have abandoned the attempt to farm in western Kansas. The wave of emigration, then, has already struck this line and absorbed, for farming and speculation, most of the land to this point. Fertile river valleys, it is true, lay to some extent, between this point and the coast, yet it will be a long time, if ever, before this fertile region will self-sustaining; 30,000,000 of people are yet to find homes ere the year 1900. Where, without affecting the whole problem of farming the country over? Be assured that cheap farms, farms for about the asking, are about to disappear in this country, that are worth having, and the era of better farming about to dawn. The time now is when there is but little encouragement to develop the country for the family line, doubling its area by doubling its capacity. I cannot now dwell to enforce my views nor will I name other strong reasons that exist that one opposed to our robber method of farming.

What shall replace the cropping system of farming now in vogue? Broadly stated, I would inaugurate a system of farming that consumed upon the farm the crops grown upon the farm, involving the saving and use of the manure made. I will give a rough outline, a skeleton view, of the system proposed and my reasons therefor. First, I would do what Mr. Curtis suggests, in your issue of August 3, and what the editor himself originally hinted at, adopt a system of rotation of crops. Whenever agriculture has developed out of barbarism, within the limits of civilization, then practice has demonstrated the utility of rotations. Roman agricultural literature is rich in instructions relating to rotations. On the revival of agriculture after the dark ages rotations took a high place, and were carried out with much intelligence. Nature most emphatically teaches the utility of rotation of crops. Who of us but have observed when ground has been cleared of wood, and allowed to foster a new growth, that a different sort replaced the former growth. There can be no doubt that more can be grown on a given acre under a good system of rotation, within a term of years, than under a succession of one crop. In brevity's name I will forbear to name the philosophical reasons in favor of rotations, but will recur to the subject, and will endeavor to show a better use for the crops than the putting of them on the market, and following will review briefly the subject of fertilization, a different sort replaced the former growth. There can be no doubt that more can be grown on a given acre under a good system of rotation, within a term of years, than under a succession of one crop. 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Notes-Correspondence.

The oats and hay crop in Adair county this year are simply immense. More than half have been raised in one season for years past and some say more than were ever raised in Adair county before.

A number of Adair county's prominent farmers have expressed their intention to devote the most of their time in the future to hog raising, thinking there is more money in hogs than wheat.

The granite shaft that for more than half a century marked the grave of Thomas Jefferson has been given to President S. S. Laws, of the Missouri University, who will place it on the campus of that institution at Columbia.

We have heard of a mule getting his hind foot in the stirrup as if he meant to mount into the saddle, but now comes the news of a horse at Griggsville, Ill., that got his hind foot fast in his mouth, requiring several men to remove it.

Our last issue contained an advertisement of the celebrated organs manufactured by Daniel F. Beatty, of Washington, New Jersey, which we inadvertently omitted to call attention to. Major Beatty is offering special inducements to persons intending to purchase an organ now.

Enclosed find one dollar for subscription to the RURAL WORLD for the coming year. I find it the most welcome visitor on the farm. Crops of all kinds good except wheat, which will not make seed. Cattle, hogs and stock of all kinds looking well. My mare Daisy O'Sullivan dropped a fine foal to Monitor June 20—think it will be another Daisy.—J. E. F., Buffalo, Mo.

The farmers of Pike county, and especially of Calumet township, have reason to be grateful that the crop has turned out so well, being far in excess of expectation. Take the crops round, corn, wheat, oats, hay, tobacco, everything, and this has not been so bad a season after all. There seems always to be some compensation to labor in the grand fruition of the seasons.

Will you be so kind as to answer the following questions through the columns of your valuable paper. 1. What kind of clover makes the best pasture for hogs. 2. Will it do to sow it in the spring with oats and then pasture the oats off with hogs—M. R. Jasper Co., Mo., Aug. 10, 1883. REPLY. Red clover is best. You can sow it in spring with oats and pasture hogs on the oats.

Can you, or any of your readers tell me how I can make a tight cistern in wet ground where a small vein of hard water seeps through continually? If you will put me in correspondence with a party that will make me a tight cistern and guarantee it to hold all surface water out; I will pay any reasonable price. By putting the above in your weekly, you will greatly oblige—Yours respectfully, J. W. M., Marshall, Mo.

Some one has taken the trouble to find out how far a farmer must walk to plow and tend a forty acres of corn. To plow the ground with a sixteen-inch three-horse plow he travels 350 miles; to harrow the ground thoroughly before planting, he will have to travel 100 miles; to plant the same, he travels 50 miles; to cultivate it three times, he will have to travel 300—making a total of 700 miles, besides the gathering.

We understand that only 16 cents is being offered for oats in some parts of the county, which on an average will not pay the expense of raising. The outcome of the corn crop is yet very doubtful with the probabilities of the yield of the States falling below the general average. Oats will surely bring 20 cents with a good corn crop and much more if the corn is short; so we say hold on to your oats, awhile anyhow.

The new wheat bulb-worm which Prof. Forbes has been studying and of which he can sometimes send out a circular account, turns out, we learn, to be an old enemy. It has proved by breeding to be the American Meromyia (Meromyia Americana—Fitch) originally described by the late Dr. Fitch, and more fully treated of and figured by Prof. Riley, in his first Missouri report, in 1868. Its work at the base of the stalk has been overlooked, as it is more commonly found at the base of the top joint.

W. H. Davis, the former editor and proprietor of the Henry Co., Mo., Democrat, has a bountiful crop on his farm near Windsor. He harvested between 50 and 60 acres of oats, which averaged 40 to 50 bushels per acre. His 25 acres of wheat was finely headed and heavy grain. His broom corn crop of 30 acres promises a fine yield. He has 50 acres of good corn. Last spring one year ago he sowed 30 acres of timothy and red clover, and some of his neighbors who have walked through it say the greater part will make three tons per acre.

What has become of K. H. Allen? Addressing him at O'Fallon, brings no reply. Has he sold all his thoroughbred Short-horns, or is he just breeding up a fancy herd? Where are the Lauras for a show herd, and the Strachmies and Princesses for milk? I suppose he is still a subscriber. Short-horns are just the thing for a new country, i.e., if we can buy small herds of 5 or 6 for \$300 each. If K. H. A. has through advertisement in your columns sold his entire herd let him say so, if I due to you—but if he is raising another herd, I wish he would let his light shine. Viz.: Advertisement.—M. Davis.

The question is repeatedly asked what weights constitutes a bushel, and in answer to all such interrogatories, we publish the law established in Missouri for the weights of produce, and would recommend to our readers interested in such matters, to cut this out and preserve it for reference: Wheat, sixty pounds to the bushel; shelled corn, fifty-six pounds; corn on ear, seventy; corn meal, fifty; rye, fifty-six; oats, thirty-two; barley, forty-eight; Irish potatoes, sixty; sweet potatoes, fifty; beans, sixty; castor beans, forty-six; bran, twenty; shorts, thirty; middlings, forty; hominy, thirty; clover seed, sixty; timothy seed, forty-five; red top seed, fourteen; Hungarian corn, forty-five; hemp seed, forty-four; flax seed, fifty-six; millet seed, fifty; osage orange seed, thirty-six; sorghum seed, forty-two; Kentucky blue grass, fourteen; buckwheat, fifty-two; onions, fifty-seven; top onion sets, twenty-eight; peas, forty-six; split peas, sixty; dried apples, twenty-four; dried peaches, thirty-three; malt, thirty-four; salt, fifty; coal, eighty; turnips, fifty-seven; hay or straw, per ton, 2000; hemp, per ton, 2000; tow per ton, 2210.

Whisky and Meat.

Whisky is in quite a despondent state. The production has gone on until the distillers are loaded down, and their bonded goods having run out the allowed term, they are forced to pay the tax or export the goods. Large lots are going out to the Bermudas for storage. When they return they can go in

bond for another term. But the revenue department is charging to the shippers all the extras incurred by this new mode of procedure. Over one million gallons are now in bond, and the distillers are still producing more than the public consumes.

They would stop if they could, but their barns are full of cattle which must be fed on the mash. On June 1st, they will throw these cattle on the market and reduce their output to less than one-quarter of their capacity.

So at that date the meat market will receive an extra supply of stock, and the manufacture of whisky will be reduced.—Philadelphia Grocer.

Shotgun and Fish-Hook.

The New York Forest and Stream, which is a large weekly journal devoted to shooting and fishing, has just been reviewing the growth of these pastimes in America during the last ten years of the paper's publication. The editor claims that anglers and hunters have increased in ratio almost incredible to those who are not familiar with the subject; and that these pastimes are held in much higher repute than formerly. The use of rod and gun is no longer an indication of shiftlessness.

The Forest and Stream says that its correspondents and contributors are largely distributed among the professions. Clergymen, lawyers, physicians, editors, teachers, business men, farmers, and, in fact, all classes of the intelligent and industrious workers of the day, are falling into the very commendable custom of taking a week or two off in the woods every summer. Game and fish are not so plentiful as they were; but the Forest and Stream maintains that with a wise protection in its breeding seasons the game may be preserved in fair abundance for many years to come. The editor believes in strict enforcement of the trespass laws, and says that "ill-behaved sportsmen will never find any trouble in getting permission to shoot and fish; while the ruffians with shotguns ought to be and with strict trespass laws would be, suppressed. That strikes us as being rather sensible talk."

Missouri Fairs.

St. Louis, October 1, six days.
Jefferson City, August 14, six days.
Boonville, August 20, five days.
Fulton, August 21, five days.
Marionville, August 27, six days.
Platte City, August 28, five days.
St. Clair, August 29, five days.
Higginsville, August 28, five days.
Kahoka, September 2, six days.
St. Joseph, September 3, six days.
Marshall, September 4, five days.
Shelbina, September 4, four days.
Sedalia, September 4, five days.
Edina, September 4, four days.
Herman, September 7, two days.
Newark, September 10, five days.
St. Joseph, September 11, five days.
Tipton, September 11, five days.
Appleton City, September 13, four days.
St. Louis, September 12, three days.
Paris, September 17, six days.
Kansas, September 18, five days.
Mexico, September 18, five days.
Columbia, September 25, five days.
Keosauqua, October 2, five days.
Cape Girardeau, October 9, five days.
Nevada, October 9, five days.
Pleasant Hill, October 9, four days.
Hamilton, August 28, four days.
Bethany, September 11, four days.

If we have omitted any fair, that ought to be included in the above list, we will be glad to hear from the Secretary.

OTHER ADJACENT FAIRS.

Jerseyville, Illinois, October 9, five days.
Joliet, Illinois, October 9, five days.
Elk Horn, Wis., September 25, four days.
Ottumwa, Iowa, August 20, five days.
Judsonia, Arkansas, October 10, four days.
Lottsville, Aug. 14.—The Louisville Fair Association will hold their fall meeting from the 18th to the 22d. The Southern exposition managers have passed a resolution making fair week "Kentucky week," and five days of the fair will be largely devoted to the interests of a live stock exhibition of horses and cattle. It will be made equal to that of the great Louisville fair of 1881, when two million dollars' worth of stock were assembled on the grounds. Inquiries for cattle and horses have come repeatedly from the West and Southwest, and stock men will be here in large numbers to see and purchase.

The Horseman.

A Couple of Illinois Breeding Farms.

Last week we visited the stock farm of A. G. Barnes, at Taylorville, Ill. The farm consists of a thousand acres and is highly productive. Some of it has been underdrained and the increased yield pays a large interest on the investment for underdraining. Last year on land that was underdrained he got 50 to 60 bushels of corn per acre, while the land adjoining, planted at the same time, yielded nothing—thus paying for the cost of underdraining in a single year.

The expense of underdraining, Mr. Barnes informed us, was about ten dollars per acre—but the tile is manufactured in Taylorville, and the cost of transportation is saved. The time is coming when the larger portion of the land of Illinois will be underdrained, as such land is sure to produce crops in seasons of drouth, or when there is too much rain for undrained land. Mr. Barnes is paying considerable attention to the breeding of fine horses. He is at the head of his stud, Dictator Forest, sired by Dictator, he by Rysdyk's Hambletonian. His first dam was by Edwin Forest, second dam by Mambrino Chief. He is a large stylish horse, and, although he has not yet shown great speed, his fashionable breeding makes him a horse of note and he ought to prove a valuable sire of trotters. Mr. Barnes has quite a number of brood mares that are well bred. Among them we noticed one by Dictator, one by Fearnaught, one by Daniel Lambert, one by Volunteer and several others whose breeding we forget. Mr. Barnes has laid the foundation for a good breeding farm, and we hope he may be eminently successful. He has also the thoroughbred stallion King Lear by Monarchist, a horse of much substance. We saw a number of his colts, and they were all fine ones.

About eight or nine miles east of Taylorville is the town of Palmer, both of which towns are situated on the Wabash railroad. Near this latter town is the residence of J. M. Simpson, an enthusiastic lover of fine horses. He is engaged in breeding thoroughbred and trotting horses on a large scale, and has some good ones. We regret we did not take notes of the breeding of some of his stock and shall have to trust to memory. His thoroughbred stallion Red Bluff, by Australian, dam Blandina, by Lexington, is hard to beat in point of quality or fashionable breeding anywhere, and his get have great merit and are in great demand. Then he also has the thoroughbred stallion Story, by Monarchist, possessing equal merits. His thoroughbred mares are the best the country affords in point of breeding, and have lusty foals by their side that will yet be heard from. Mr. Simpson says he has demand for ten times as many colts and fillies as he breeds.

But Mr. Simpson does not confine all his

attention to the breeding of thoroughbred horses. His trotting stallion, Bonnycastle, is highly bred, and for perfection of form is hard to beat. He is by Belmont, dam by Alexander's Abdallah. We saw a number of his colts and fillies, and they all showed superior style and trotting action. Mr. Simpson also has a number of well-bred trotting mares. He has a farm of nine hundred and fifty acres, most of it well set in grass. He is also breeding Short-horn cattle, and is one of the enterprising men of this portion of the state. Our visit to both of these farms was a very pleasant one, and we return thanks for the many courtesies shown us.

Dictator as a Sire.

Dictator is making his mark as a breeder of trotters. He is owned by Col. Richard West, of Kentucky. He is full brother to the renowned Dexter, is 15½ hands high, has short legs but good bone and plenty of muscle, is deep through the chest and shows individuality and constitutional strength. He is about twenty years old and since such horses that have been sired by him as Jay Eye See, Director, Code, Phalaris, etc., have made the fast records they have, his services have come largely in demand and some of the best brood mares of the country have been bred to him the past season. He is showing his age somewhat by the sinking in of the back, but if judiciously used has many years of service yet. His blood is well worth perpetuating.

A Horse Choked by a Snake.

Superintendent Lyon, of the Barclay Coal Mines, was in the city Wednesday and told an American reporter the following snake story, the authenticity of which, he said, could be vouched for by several reliable citizens. "On Tuesday last a boy was engaged in ploughing on the farm of a man named Wilkinson, between Greenwood and Monroeton, in Bradford County, when he saw an enormous black snake lying stretched along on the ground near the fence. Frightened by the reptile the boy dropped the line and started on a run for the house. Reinforced here by several members of the family he went back, when one of the horses was found lying on the ground with the python tightly coiled about his neck. The snake was despatched, when it was found that the horse was dead, his life having been choked out by the snake."—Elnora Advertiser.

Gifford or Justin Morgan Horses.

EDITOR RURAL WORLD: Some months since you published an article from "J." a correspondent, relating to a "Justin" Morgan stallion. I am anxious to learn who breeds or imports either the "Gifford" or Justin Morgan horses in your State or in Illinois. Any information would be very acceptable.

Yours, etc., BURDETT.

Colorado, Texas.

The fact is, I should like to secure some of the breed, of the "Gifford" horse especially, and if you have no knowledge of a breeder, the above might bring some one to the front if you could give it space, and oblige a subscriber.

Jay Eye See has not only the best 4, but the best 5-year old record. His 2:16½ at Cleveland last Friday eclipsed Santa Claus' time 2½ seconds, which has stood for the best at that age since 1879.

The pool-selling at the recent Pittsburg trotting meeting was said to be greater than ever before in the history of trotting meetings—first day, \$53,000; second day, \$71,000; third day, \$85,000; fourth day, \$95,000; total, \$284,000.

Edwin Thorne, St. Julien, Trinken and Fanny Witherspoon were paid \$200 a piece for simply walking up and down the stretch in front of the grand stand at Pittsburg. They were to trot for a special purse but the track was too heavy.

James A. Dustin, of Chicago, has purchased from James Langhorne, a 4-year old grey colt Billy Clunker by Clunker, dam Belvoir Maid, that trotted so well in the 4-year old race at Chicago on the 10th, the price paid being \$3000. Dr. Lucas, for whom the colt was bought will trot him. This is a Missouri raised horse. He showed a nullo the day he was bought in 2:24½.

Some good horses are addicted to stumbling while walking or moving in a slow trot. A well versed veterinarian states that there are two causes that would tend to produce this faulty action—one a general weakness in the muscular system, such as would be noticed in a tired horse; the other, a weakness in the extensor muscles of the leg, brought about by carrying too much weight to the toe. To effect a cure he adds, lighten the weight of each front shoe about four ounces; have the toe of the shoe made of steel instead of iron, it will wear longer; have it rounded off about the same as it would be when one-third wore out, in order to prevent tripping; allow one week's rest; have the legs showered for a few minutes at a time with cold water through a hose, in order to create a spray; then rub dry, briskly, from the chest down to the foot. Give walking exercise daily during this week for about an hour twice a day. When you commence driving again omit the slow jog, either walk or send him along at a sharp trot for a mile or two, then walk a way, but do not speed for at least several weeks. By this means the habit of stumbling from either of the above causes, will be pretty well overcome.—Pittsburg Stockman.

The performances of Tony Newell, Majolica and Phalaris this season intensify the regret that Clark Chief should have been called from the scene of his usefulness at such an early age. Foaled in 1861, he died in 1871, and if put to the stud in his three year old form would have made but seven seasons. In that time he sired seven horses in the 2:30 list, including Croixie 2:19½, Woodford Chief 2:22½ and Tony Newell whose record to date is 2:20½, but who is almost sure to materially lower those figures. Starting out this season with a record of 2:30½, he has won every race in which he started, lowering his time ten seconds. At Louisville he made a record of 2:25½ on May 11, and has trotted one race a week ever since, with one exception, trotting at Cleveland in 2:23½ and at Washington in 2:20½. His dam was by Emory's Lexington, and this gives him the standing to last his race out. One of the phenomenal trotters of last year, Wilson, who made a record of 2:21½, and trotted twenty-three heats in 2:30 or better, was also out of a mare by Clark Chief, and Leontine, 2:23½, is likewise from a mare by him, while one of his sons produced Humboldt, with a record of 2:20.

In addition to the two sons of Alexander's Abdallah, Abdallah Pilot and Thorndale, mentioned last week, the dams of which were by Mambrino Chief, there are Belmont and Almont, both foaled in 1861. Belmont's dam was Belle, by Mambrino Chief, and her dam was a daughter of Brown's Belfounder. At the close of last season Belmont was represented in the 2:30 list by six trotters, two of which, Nutwood (2:18½) and Wedgewood (2:19) had won heats below 2:30. The dam of Nutwood was a daughter of Pilot Jr., and that of Wedgewood was by Woodford, he by Kos-

clusco, by Sir Archy, by imported Diomed. She was also the dam of Woodford Mambrino (2:21½). Almont, the last of the four, was from a daughter of Mambrino Chief, whose dam was by Pilot Jr. At the close of the season of 1882 Almont was credited with twenty in the 2:30 list, three of which had won heats below 2:30, while Early Rose and Aldine had trotted an exhibition mile to pole in 2:16½. Three other sons of Alexander's Abdallah have produced 2:30 trotters, viz.: Wood's Hambletonian, foaled in 1859, dam said to be of Morgan stock, was seven in the above list; Jim Monroe, foaled in 1861, dam Lizzie Peoples, by Wagner, by Sir Charles, by Sir Archy, by imported Diomed, has produced six with records of 2:30 or better, and Major Edsall, foaled in 1859, whose dam came from Vermont, being represented as by Harris Hambletonian, has one representative, Robert McGregor (2:18½), making the total number of 2:30 trotters by sons of Alexander's Abdallah at the close of last season forty-five, ten of which had won in 2:30 or better. Twenty of the forty-five, nearly one-half, were the get of Almont, which shows conclusively that he must have either been favored with a better class of mares than the others, or received from the Pilot Jr. cross a stronger trotting inheritance than is possessed by any other son of Alexander's Abdallah. Doubtless many well informed horsemen will attribute his success to the latter, and as the Pilot Jr. cross is found in Mand S. (2:10½), the fastest trotter that has yet appeared in public, also in Jay Eye See (2:15½), the fastest son of Dictator, and in Nutwood (2:18½), the fastest son of Belmont, as well as many other first-class trotters, it would seem that they had good grounds upon which to found such belief.—Am. Cattleman.

Stallions now living with records of 2:30 or better, are:

Phalaris	2:15½
Jerome Edly	2:16½
Director	2:17
Piedmont	2:17½
Black Cloud	2:17½
Santa Claus	2:17½
Hannis	2:17½
Duquesne	2:17½
Monroe Chief	2:18½
Nutwood	2:18½
Wedgewood	2:19
Alexander	2:19
Van Armin	2:19½

The trotters who have made 2:30 or better since Eye See.....2:15½
Phalaris.....2:16½
Wilson.....2:16½
Director.....2:17
Majolica.....2:17½
Edwin Thorne.....2:17½
Fanny Witherspoon.....2:17½
Duquesne.....2:17½
Clemmie G.....2:18½
J. H. Thomas.....2:18½
Catcher.....2:19½
Overman.....2:19½
Sleepy Joe.....2:19½
St. Julien.....2:19½

R. C. Pate, St. Louis, Mo., has sold the following trotting stock:

To George Voorhes, Detroit, Mich, the bay mare Rigolette 2:29½; by Exchequer, dam said to be by John C. Breckinridge \$4,000

To E. Bither, of Racine, Wis., the filly Lucille Sprague by Gov. Sprague, dam Lucille by Exchequer, \$1,500

To Mr. Bacher, of Philadelphia, Pa., the bay mare Lady Thorne, Jr., record 2:25½, by Darby, \$2,000

To Robert Farrell, Mayville, Mo., Bay Wilkes, 6 years old, by George Wilkes, \$500, dam by Woburn

Paul Hatcher, the owner of the stallion Duquesne, states that he was offered \$40,000 for the horse, but he valued him at a higher figure.

It is stated as a fact for farmers that the seed of the sunflower is the only remedy ever discovered for the cure of founder in horses. Immediately on discovering that young horses are founder, work about a pint of the whole seed into his feed, and it will effect a complete cure. This is going the rounds, and though unknown as a specific to us is given here for what it is worth.

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HEALTHY, HARDY, VIGOROUS, PROTECTIVE, EARLY. Hangs on the vines for months and never drops, cracks or shrivels. Bunches large, compact, uniform, beautiful and showy. A good keeper, of excellent quality, and pronounced by experienced manufacturers unsurpassed as a wine grape. We count the fullest investigation, and invite all to come and see it.

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Remarkable Testimonials!

on L. A. Knight's Asthma and Hay Fever Cure. Price per bottle one dollar. For sale by Richardson & Co., of St. Louis, and all druggists.

P. H. Kellogg, Esq., North Brookfield, Mass., writes Dec. 19th, 1883:

I can only reiterate what I said in a former letter. I have not had occasion to take any of the medicine since Aug. 31st. I regard it, in my case at least, as a sure specific for Hay Fever. I advise every one who is troubled with Hay Fever to give the remedy a fair trial, believing, if so used, it will, in a large majority of cases at least, effect the desired cure. Very truly yours,

P. H. KELLOGG.

Mrs. J. H. Huskins, 356 Central street, Manchester, N. H., writes April 11th, 1883:

I am happy to say that my boy is improving fast. He has got so he can go to bed when first undressed, while for a long time before he had to sit bolstered up in chair till midnight, and sometimes a great deal later. During this time he would have very severe coughing spells, and sometimes the Asthma spells would be so terrible as to frighten us very much. Oh, I am so thankful we tried your medicine, though I must say in the beginning I had not much faith; NO, NOT ANY, for we had tried so many things. He is just as hearty now as he can be—keeps telling us how hungry he is, and he is growing fast, too. He was, oh so poor. He can now go out and run with the other boys, which he could never do before, and it is such a treat to him. He is so much better. I don't know what to do, only I keep saying over, and over, "how thankful I am."

Respectfully, Mrs. J. H. HUSKINS.
Send for treatise on Asthma and Hay Fever, to L. A. Knight, 15 East Third St., Cincinnati, Ohio.

BREEDERS' DIRECTORY.

JAMES W. JUDY, Tallula, Menard county, Ill., live stock auctioneer. Sales made in all parts of the country. Refers to any breeder in the west.

PHIL C. KIDD, Lexington, Ky., live stock auctioneer. Sales promptly attended to in all parts of the country. Correspondence solicited.

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H. B. SCOTT, Sedalia, Mo., breeder of Short-horn Cattle, Poland China Hogs and Standard Sheep. Anything in the herd for sale.

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KANSAS SHORT-HORN CATTLE.—Robert Patton, M. D., Hamilton, Kansas, breeder of Short-horn Cattle of the best families. Stock for sale. Inspection invited.

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L. W. ASHBY, Locust Grove Herd, Calhoun, Mo., Breeder of Berkshire swine of the largest and best quality. Stock for sale. Correspondence solicited.

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The Home Circle.

A POEM

TO REV. GEO. A. WATSON.

Your poem was too erudite, for me,
Too full of vague and doubtful mystery;
With sandwiches of awful "a's" and "b's"
So solemnly parenthesized—your meaning,
please?

I'm never "meek of mien," nor perfect any
way,
I'm just a naughty girl, quite prone to say
"Such shocking things," that grandmas, as a
rule,
Eschew, and call me "saucy little fool."

O, awful learn'd and reverend mister! I
Must from such deeply hidden knowledge fly;
Such caves of wisdom I never could explore,
I should get lost, and ne'er see daylight more.

I beg your gracious pardon for the line
That brought me 'neath those blazing eyes of
thine;
To scorch a body with poetic fire
Is worse, methinks, than striking ancient
lyre.

Does anybody see the pun?
FANNY FROST.

A MODEL GARDENER.

Bill Hedger was a gardener
Who earned his daily meat
By toiling resolutely all day—
His zeal was hard to beat.

He was a man of tender parts,
And thoughtful for his years—
E'en when he cut his onions down
His eyes would fill with tears.

He was so pitiful and kind
He doted on his lawns;
But tho' he'd never shock his friends,
He'd often shock his corn.

A score of carrots oft he'd give
To feed a widow's kine;
Such gems of clarity are rare—
Full twenty carats fine.

His wretched horse could hardly creep,
Bill propped him while he grazed;
He said he'd have a better steed
When his celery was raised.

He'd sometimes cauliflower to him
When he had done his work—
He loved it stewed in butter-milk,
Or boiled with greens and pork.

But death at last mowed William down,
And they planted him in loam,
And gave him for his epitaph—
"He found sweet peace at home!"

THE JUDGE.

A Little Maiden From the Hills.

Dear Circle: Seeing so many were
absent for the last two or three weeks
I, another stranger, timidly write a little
letter to the Circle. Oh yes, I suppose I
must tell you I am a country maiden, and
can milk, churn, wash, iron, and so on.
Now please, Bon Ami, do not criticise
or scare me to death, for I do not care to
die as yet, and will not write a very long
letter, and hope the Circle will overlook
my mistakes.

What has become of Idyll, May Myrtle,
Fannie Frost, Paulus, and ever so many
more? Now we miss you every one, why
do you not visit us oftener? Bon Ami,
from Fannie Frost's last letter, it looks
like she has a bad opinion of you, Fannie,
if Bon Ami criticises me too much, won't
you help me to give him a right good
tongue lashing? A'though he said he
would rather kiss you than "fuss" with
you, now please do not say you won't
help me? Well I am in a hurry, so if Bon
Ami will promise not to criticise and
scare me to death, and the Circle will
allow me, I will call again. I have only
one foot on the threshold. But by the
answer of my above question I will come
again. May I come? Adieu.

MARY GLENDOLAN.

Winter Comes Again, But Fresh and Blooming as Early Spring.

EDITOR WORLD: Do please stop all
those people who are complimenting
me. Jack is getting awfully nervous for
fear I shall be spoiled, and my sweet-
heart Fred, (not of the Home Circle) is
so jealous of Bon Ami that there will be
sure to be a duel, if those two belligerents
ever meet.

Mr. Bon Ami, I am not so frightfully
antiquated as I might be, but I have got
the loveliest sweetheart ever was, and
you just can't kiss me—so there!

Floe, you dear, delightful darling, you
want a description of me, so you can tell
all who I am when you meet me, this fall,
at the St. Louis fair, don't you? Did you
ever read Hood's "Lost Hair"? If you
did, look for just such a face among the
crowd; and when you see it, go and kiss
it, for it will be mine, sure.

Rev. Geo. Watson will read the poem
sacred, dedicated to him, and I want the
rest of you to read it for mother, and
Jack, and Faye, and all of our folks think
it is just too splendid for anything, and
lots better than Idyll's or May Myrtle's
poetry.

Now, Bon Ami, I will instruct you how
to make nice biscuits—the rest may stand
around and look on, if they want to.
Wash your hands please; clean your finger
nails next; roll up your sleeves (your
coat is out on the hall rack, of course);
put your mother's blue check apron on;
clean one, too. Now turn the lid of the
flour chest, and sift two or three quarts of
flour into the tray (not all over the flour)
If you are nervous and shaky, and afraid
you will spill the flour over everything,
take a clean copy of the RURAL WORLD,
open it to its fullest extent and place it
on the kitchen table, and

sift your flour on that, and then
carefully pour it into the tray. Now
make a hollow in the flour with your
right hand and put half a tablespoonful
of salt in it; now take sweet butter
(don't think I am a Jew, please), half a
teaspoonful, and work it into just enough
of the flour to nicely absorb it; now take
a quart bowl and fill it rather more than
half-full of sour milk and dissolve a level
teaspoonful of soda in it, stirring it with
a large spoon until you are sure it is all
dissolved; now pour the contents of the
bowl gently into the flour, stirring it
with the spoon until sufficiently thick to
mould into biscuits, now put a handful
of flour on the board, lift out your dough,
and mix it, using more flour when neces-
sary, until you can roll it out thin, (leave

them half an inch thick) and bake on
butter pans, in a moderately hot oven;
bake a nice brown, and then split them
open, spread them with any kind of nice,
ripe berries, crushed, with plenty of
sugar, (strawberries, or raspberries are
best); and you will have a good dish, fit
for the gods, or anybody else. They are
very nice without the berries. I forgot
one important item, pin a clean towel
over your hair, a la Aunt Chloe; then
you can summon your sweetest sweet-
heart to partake of those biscuit without
fear. Now, Mr. Bon Ami, you can't say
that I have not made a fair return for
those precious frost-bites which you so
generously forgave.

But, right here, I wish to ask
the members of the Circle if they
observed the frightful audacity of that
horrid man, Patrick, who dares to sav-
our his own signature, that he don't like
the Home Circle; isn't it just too awfully
dreadful to talk about? I suppose he
don't like his home, nor his wife, nor
children, if he has any, which, for their
sakes, I hope he hasn't; but he needs to
go around, publishing his hard-headed-
ness to the world, hateful old mummy!
Every gentleman, of my acquaintance,
just dotes on the Home Circle, and says
it is ever, and ever so nice—most as en-
tertaining as a tea-party, or a sewing
circle. Mr. Patrick, if you don't like
American ways, you can just go back to
Ireland, may be you could manage to get
into an English prison, I guess that
would be gloomy enough for you. I
shall have to stop writing, or I shall say
something awful to that horrid old man.
Yours indignantly,
FANNY FROST.

A Good Name Libelled.

MY DEAR HOME CIRCLE: I have an
exquisite and unerring consciousness of
the obnoxious futility of presuming ade-
quately to delineate the remarkable
depth and intensity of my salient emo-
tions engendered on the important occa-
sion of the execution of the premeditated
scheme, namely: presenting myself for
admission into your renowned union,
and anticipating the luxury of associat-
ing harmoniously with the sagacious lit-
erary characters which adorn the Circle
with the immense profundity of their
acumen—in short, this inchoate task has
produced in the vicinage of my cardiac
region the most unqualified of delectable
experiences.

It affords me no diminutive gratifica-
tion to observe with what superlative
tranquility, and almost total absence of
hypercritical demonstrations, the vari-
ous individuals of your union seem to ex-
ist in their literary intercourse.

Far be it from the intentions of the
undersigned to dissipate the happy sun-
shine which permeates the Circle, by a
desultory introduction of ideas calculated
to provoke dissenting attitudes.

A society of readily apprehensible
thoughts in a newspaper letter, (as you
must be constrained to acknowledge)
ostensibly minimizes the hazard of promp-
ting polemical dissensions, hence the
briefness of this article and its general
confinement to axiomatic observations.
It will evidently grieve you to learn
that I am suffering from a diabolical dis-
ease, and have to write in a recumbent
position. Your prayerful friend,
WILKINS MICAWBER.

Now, any one acquainted with the late
Mr. Micawber will agree with us that the
above is a libel on his good name and
character. Verily are we tempted to say
to the writer as another Micawber said
of Gladstone on one occasion, "He
is a sophisticated rhetorician, celebrated
with the exuberance of his own verbi-
osity," and then consign him to the
tender mercies of Bon Ami, Lloyd
Guyot, Paulus, and all other of the glad-
itorial writers to the Home Circle.

Now the Feathers Will Fly.

And now the Home Circle page is
coming to the front again. It has been
occupying shady ground for several
weeks, perchance a cyclone scattered the
actors. The fury of the elements is
much dreaded in our parts, since some
people have constructed caves, for a
place of safety. In those places some of
the more nervous women keep their
silverware, and have their most costly
wearing apparel ready at a moment's
warning to convey thither.

Three new writers in the Circle, all
in one week. Mr. Editor, how happy
you ought to be for such an addition to
your staff. Poor old maid, I pity you in
your sorrow, if in truth you are an old
maid and not an alias. I have ever had
a warm place in my heart for the dis-
tressed. Fanny Frost, South West Missuri
or Northwest Arkansas is a good place to
go. Floe you come dancing into the
Circle like a new recruit, but I am in
doubt as to your sex, I certainly see a
wolf's ears protruding above that in-
nocent looking lambkin, or I may say,
I see those ponderous boots just below
your skirts. A greater man than you
are, was several years ago picked up in
the same attire. You have been many
times with the Home Circle in trousers.
Old members of the Circle will readily
recognize you. Really, I ought not to tell
on you, some foolish boy will take you
in and be making love to you soon,
which will be amusement to the old
veterans of the Circle.

Sometime ago, one Guyot, alias a
dozen or more names, pitched into me
for writing a special on Bon Ami, which
I cannot now call to mind. But there
was nothing in it to call forth
Guyot's tribute of unpleasantness. It
was not his flight, it was Bon Ami's re-
tort.

With the consent of the Circle, I have
this to say of Guyot. He is a great
Circle performer, but he is not known
outside of a small circle of school dis-
tricts.

The only thing he ever got off worthy
of notice was the cow-boy, and he
scooped that from the *Texas Siftings*.
Guyot with Paulus the Great, are
mighty men in the Home Circle, when
they can scoop in the work of other
brains, but when their own feeble brains
make an effort to amuse the Circle, the
production is sadly wanting, and barely
with the notice of a lot of children
in attendance at a common district school.

When a year ago or more, I wrote to the
editor of the RURAL WORLD for admis-
sion to the Home Circle, he replied that

he preferred that I should write to the
Horticultural Department, that my ar-
ticles were extensively copied by other
journals of the country; and he might
have said, and doubtless thought, it
would be a step downward, to be seen
in company with Guyot and his aliases.

Uncle John, come into our Circle
again. Your article in the Horticultural
Department in the last RURAL is good.
I agree with you entirely as to varieties,
strawberries, etc. Come into the Circle
again, and often. The RURAL has been a
weekly visitor in my house for more than
fifteen years, and you, I am sure, are one
of the RURAL's oldest supporters. So
Uncle John, I bid you come again, and
let us not allow those Texas cow-boys to
rule, reign and domineer over the Home
Circle any longer.

I mean to visit the Home Circle more
frequently than I have the past six
months, and whenever opportunity offers,
I will lash the Texas cow boys and
their aliases both fore and aft.

JOSIAH.

Sunday Amusements, Abuses, Observance and Laws.

[CONCLUDED.]

In the discussion of the Sunday ques-
tion, we have at last reached the much
mooted, vexed, and tortured topic of
Sunday Amusements. Are any amuse-
ments allowed on Sunday? Some say
yes, and some say no, and others sanc-
tion such amusements, or relaxation, or
state of repose, as are not within the
reach of society at large.

Those who allow amusements on Sun-
day, maintain, that after having devoted
a reasonable portion of the day to reli-
gious exercises, which are expressly di-
rected to the public and divine worship
of Almighty God, that then they may
innocently pass other portions of the day
in amusement and relaxation, and the
amusements, too, may be of a noisy
nature, as base ball, town ball, and foot
ball.

There are about two hundred millions
of Catholic Christians, who substantially
take this view of Sunday amusements,
and who justly deem their use no infrac-
tion of the Divine law.

They regard the Sunday as a day of
rest for body and soul, and consistently
with this belief, they refuse to pass it in
a humdrum way, listless and joyless,
with mock solemnity, and morose
acute depicted on body and mind, graphi-
cally impressing the startled beholder
with the vivid conviction of the
woful effects wrought in the hu-
man soul, by the commission of the
seven deadly sins. We have, they
truthfully conclude, no dictate of reason,
no scriptural authority, and no doctrinal
decision, that requires us to change the
Sunday into a day of unalterable gloom.

Others again, tolerate no Sunday
amusements. According to them you
may read papers, you may frequent the
theatre, but your heart's content on week-
days; but on Sunday, these same ban-
ished amusements become criminal, and
render the perpetrator amenable to pun-
ishment for the infraction of the Divine
law. To this I reply, that what is as-
serted without proof, may be refuted in
the same easy way, without given proof
or reason.

You then approve of Sunday theatres?
Not so fast, my friend. I most emphati-
cally do not approve of Sunday theatres,
but a person might think and act
differently without sin being guided by
his conscience, which is a practical dis-
cussion, or judgment of reason,
pointing out to him what he ought to
do, or omit, here and now. Of course,
I am intimately persuaded that Sunday
will ever remain with us, a time-hon-
ored day, but to suppose that the re-
straints and prohibitions of the childhood
of a nation can still be maintained in
the advancing vigor of manhood of that
same nation, would seem to mark the
rarest follies of a narrow-minded man.

Sunday travel in the present material
condition of this country cannot, and
will not be stopped. And I feel assured,
that no Sabbatical soporific or nonsense
of any denomination shall ever be able
to succeed in effecting such abolition.
Were this unfortunately to happen,
we would then have inflicted on us
the Sabbath of the wealthy,
whose amusements after six days' use,
might well be topped on one day, to be
resumed the next, with increased re-
lish, and with renewed zest. Such a
Sunday, however would be no day of
rest to the humbler classes of society.
They are entitled to have a chance to en-
joy on the only day within their reach,
the sources of amusement afforded them
by the parks and other public resorts of
a vast and thriving city, and which parks
have been mainly acquired by the com-
bined labors of all the citizens.

Sunday is their Sabbath, and they
resist the divine service, Almighty God
Himself. If, with the power of the ballot
in their hands, they should allow it to be
wrested from them, then, indeed, would
they richly deserve their subsequent
degradation. For what can be more
galling or degrading, to the intelligent
mind, than the consciousness of having
lost inestimable advantages, through
supine indifference in the non-use of the
ballot, which every freeman ought to
know, when, and how to use.

Now bring together two texts of script-
ure, that seem to explain one another.
Remember thou keep holy the Sabbath Day.
Exodus ch. xxv. 8. And he said
to them; the Sabbath was made for man
and not man for the Sabbath. Mark c.
II. v. 27. The Sunday, therefore, was
made for man, not man for it. Let him
not then become its slave; but let him
commingle divine service, with rational
enjoyment, and noisy enjoyment, at
that too, if he so chooses, not however,
without due regard to time and place,
as others' right must be respected and
properly protected.

Finally, are there any abuses connect-
ed with the Sunday? I suppose there
are, as some persons turn it too much
into a day of employment of one sort or
other. Indulgence in social enjoyments
beyond a reasonable hour, and which are indulged in so far,
as to render the mind unfit for the dis-
charge of Sunday obligations, may be re-
garded as a constructive violation of this
day. It ought to be, more or less, a
day of comparative quiet. This idea of
quiet may be worked out in the mind, at
all times of the day, and amidst what
might otherwise act as unavoidable and
most prolific sources of mental dissipa-
tion. Now, although the Sunday is
eminently a day of the Lord, neverthe-
less, the soul can be profitably con-

scious of this fact, and still do ample
justice to a great independent and
divergent train of thought. Granting,
which cannot be denied, that the soul
has this power of multiplying and guid-
ing its intellectual activity, it follows as
a necessary consequence, that the fewer
Sunday laws we shall have inflicted on
us, the better it will be for the rich,
the poor, and all other classes of society.
We, the American people, will possess
and enjoy freedom of action, and the
largest share of it too, that may be made
compatible with rational freedom.

REV. GEO. A. WATSON.

N. B.—I cannot see the great good,
that some persons fondly imagine to
themselves, must necessarily result
from the closing of the saloons on Sun-
day.

Frank's Views on Men and Things.

Plato once wrote: "Here is a thing
wherein I would willingly have you
agree, that is to dispute and not to
quarrel; for friends dispute between
themselves for their better instruction,
and enemies quarrel to destroy one
another," and yet, some of the friends of
the Circle seem to think because we do
differ and dispute about various subjects
that naturally enough come up in the
Circle, that we ought to be hushed right
up or they will be obliged to leave in
disgust. One of Juvenal's mythical friends
in the number of July 5th, thinks Frank's
criticism on Observer's article terrible,
and why? Oh, because he didn't talk like
a softy and use nice pretty language.
He says: "a writer ought to be able to
combat adverse opinion or statement
without betraying loss of temper or
urbanity." Very true indeed; we never
write when out of temper, did not that
letter or any other, but are deeply in-
earnest in what we write about, and say
just what we mean, and mean what we
say; endeavoring to call things by their
right names, if we know them. So
Juvenal's remarkable mythical friend was
laboring under a great mistake. We are
glad that Bon Ami was so fortunate as to
be able to pick himself up and properly
put himself together again, after being
jostled about so with that Mexican pony,
and yet, there seems to be further diffi-
culties awaiting him, as Fanny Frost has
signalled her intention of "scratching his
eyes out." That I am sure would be a
calamity to the Circle. I would much
prefer a Bon Ami to a Blind Ami. A
gentleman, whose name I have forgotten,
has written quite an article in the
York American Review in regard to the
genius of woman, showing that she has
been the author of some of the most use-
ful inventions of the day. I trust Bon
has carefully perused that article, as he
made the declaration a few months since,
that she had never invented anything at
all. It now looks as though Bon some-
times writes concerning matters that he
knows nothing of. Bon as a gallant, is a
decided failure, as he is too easily
headed off by the "small bad boy." Will
Carleton's poem of a recent num-
ber of the RURAL sounds familiar. I
heard him read, about a dozen years ago,
in my native state, (which is also his).
He was then quite a young man, good
looking, sprightly and full of life. I al-
ways enjoy reading his poems, as they
contain so much of real life. "Out of the
old house, into the new," is a good one.
The RURAL of May 24th, contained a
cheery letter from Schoolma'am, who
seems to have been taking a pleasure trip,
and I trust has been enjoying herself
hugely down in the best part of Ne-
braska. She also takes the liberty in ad-
dressing me to place a prefix to my noun
de plume, which is an exception to the
rule; and then intimates that if I am not
careful she will inform the Circle of some
of my political honors. Now as friend
Walnut was the only member of the Circle
that knew anything in regard to that
matter, I think (as the politicians say)
Schoolma'am has given Walnut away.
Friend Walnut, we want no more of
that, as partiality is not allowed in the
Circle. Send your letters to the Circle,
and not to individual members of it.
Walnut, if you must write to individual
members, write me at Rest Kaw, and I will
answer. I think you have changed your
address since I last saw you. School-
ma'am also wants to know how I obtain-
ed so much information concerning her.
I simply know nothing save what you
and Col. Coleman have told me, and I
remember that over two years ago
you stated in a letter to the Circle, you
had to pull on Pa's boots, and go out in-
to the snow and look after the stock. I
afterwards, in a letter referred to it and
asked you if you were still wearing Pa's
boots, or something to that effect, where-
upon you replied by stating that he had
worn them to St. Louis. About that
time a gentleman from your county, who
was engaged in the corn-bush business,
and whose name commences with B.,
called upon the Col., and a notice of the
same was published in the RURAL. Now
any one living in Nebraska, knows it
is seldom one goes from your section to
St. Louis; they mostly go to Chicago on business
and arrived at my conclusion. That is
how I came to make so good a guess.
Miss B. Schoolma'am says she is partial
to Nebraska productions except rattlesnakes
and Indians; you might have in-
cluded coyotes and weasels, (except
cockleburrs, they grow in Texas.) Please
come often, for I like to read your cheery
letters. In the RURAL of May 31st a
writer subscribing himself "R. Tist,"
makes some grave assertions concerning
the temperance question. The language
he used was more particularly address-
ed to Lloyd Guyot, and consequently I
awaited Lloyd's reply before saying any-
thing; and were it not for the fact that
such language as he uses, and such as-
sertions as he makes, appear in one of
the best agricultural papers of the land,
and is read by as intelligent a class as
can be found anywhere, I don't know as
I would say anything about it, but treat
it as the fulminations of an ignoramus,
or one possessed of a depraved judgment.
He says: "Prohibition has proved a failure
where it has been tried, and for this reason
I conclude that it is unnecessary and
not constitutional." His declaration that
prohibition when tried is a failure,
is not founded upon fact, which is
apparent to every one that has taken the
pains to read up on the subject, and is
of that species of ranting indulged in by
the liquor seller, who fears his traffic in
that commodity will be interfered with.
Any one at all acquainted with the writ-
ings of Gen. Neal Dow and all the lead-

ing public men of Maine, knows that the
law prohibiting the sale of liquors as a
beverage, is as much obeyed as any law
upon their statutes. Whenever such laws
are violated it is not the fault of the law,
but that of the executors of the law. It is
true the prohibitory law of Maine may
be violated in certain cases; so is the law
against horse stealing, arson, burglary,
larceny, bigamy, etc. Does that argue
they are failures, and ought to be repeal-
ed. Does it argue that because a law is
violated, it necessarily becomes uncon-
stitutional? If so, we are to-day with-
out a single constitutional law on our
statute books (according to "R. Tist's"
brilliant logic), for we have not one but
that which is violated. "R. Tist" further says:
"The immoderate use of a great many
other things is a greater evil than inter-
temperate drinking," and then refers us
to the evil of eating hot bread, intimating
that that was a greater evil and of more
alarming proportions than the use of
alcohol. Can it be possible that that
writer has come into the midst of the in-
telligent readers of the RURAL for the sole
purpose of talking such nonsense? Since
1860 alone, the liquor traffic in this
country has cost more money, desolated
more homes, crushed more hearts, and
destroyed more lives than the great war
of the rebellion. Prohibition is in har-
mony with the purest philanthropy of
the nineteenth century. A presiding
judge of one of the Chicago courts re-
cently said: "The saloons of Chicago are
responsible for the cost of the police
force, the fifteen justice courts, the Bridg-
well, the criminal courts, the county jail,
a great portion of Joliet, the long mur-
der trials, the coroner's office, the morgue,
the poor house, the reform school,
the mad house, etc., also the gambling
houses and the bad houses of the city are
the direct outgrowth of the boon com-
panions of drink." Of all the boys in the
reform school at Pontiac, and in the vari-
ous reformatory institutions about the
city, 95 per cent are the children of
parents who died through drink, or be-
came criminals through the same cause;
90 per cent of defalcations came about in
the same way, and full 90 per cent of the
divorce cases were brought about in the
same manner, and 70 per cent of the in-
sane or demented cases disposed of in
the courts are from the effects of al-
cohol." It is a conceded fact by judges,
that four-fifths of the crime in our coun-
try is caused either directly or indirectly
by the use of drink. It is costing us to-
day many times more than we are ex-
panding to advance our religious, educa-
tional or industrial interests. Alcohol
depraves and degrades humanity, and
contaminates society, and is the great
evil of the day, and yet, "R. Tist" igno-
rantly declares it no greater an evil than
"eating hot bread."

For shame! Go and hide yourself, and
cry for the rocks to fall down upon you.

"FRANK."

Rest, Kas.

THINGS IN GENERAL

Wise's Axiom beats castor oil.
He that wrestles with us strengthens our
nerves and sharpens our skill. Our antagon-
ist is our helper.—Barke.

When you have had Catarrh long enough,
just send 10c. to Dr. C. R. Sykes, 181 Monroe St.,
Chicago, for his "True Theory of Catarrh."

Blessedness consists in the accomplishment
of our desires and in our having only regular
desires.—Augustine.

Charles J. Bonroe, St. Louis, Mo., says: "I
have taken Brown's Iron Bitters for nervous-
ness and general debility with good results."

Wishing, dreaming, intending, murmuring,
and repining, are all idle and profitless oc-
cupations. The only manly occupation is to
be doing.

"Five doctors, no kind of medicine; no re-
lief. Dr. Benson's Skin Cure has driven away
all eruptions and I'm nearly well."—Ida C.
Young, Hamilton, Ill.

A man dies very much as a bucket of wa-
ter is drawn from a well. There is a little
depression for a moment, then with a little
guilt the waves fill it, and the streams flow on
with the sun shining on the spot as before.

Waiting a Claimant.—A challenge is offered to
any one who can produce a case of torpid
liver that will not succumb to the influence of
Simmons Liver Regulator, taken regularly by
direction.

Don't live a single hour of your life without
doing exactly what is to be done in it, and
going straight through it from beginning to
end. Work, play, whatever it is, take hold at
once and finish it up squarely and clearly,
then do the other thing without letting any
moments drop between.

Young, old and middle-aged, all experience
the wonderful beneficial effects of Ayer's
Sarsaparilla. Young children suffering from
sore eyes, sore ears, scald-head, or with any
scrofulous or syphilitic taint, may be made
healthy and strong by its use.

It is truly awaiting recognition that the
actual learning how to use the hands dexter-
ously and accurately is a positive gain to the
mental faculties. The trained hand and the
trained eye are the best preparations for the
trained thought. They give the first idea of
system, order, accuracy, and the effective
carrying out of a plan.

"With grateful feelings,"—Dr. Pierce, Buf-
falo, N. Y.: Dear Sir—Your "Golden Medical
Discovery" and "Purgative Pellets" have
cured my daughter of scrofulous Swellings
and Open Sores about the neck; and your
"Favorite Prescription" has accomplished
wonders in restoring to health my wife who
was bed-fast for eight months from Female
Weakness. I am, with grateful feelings, yours
truly—T. H. Long, Galveston, Texas.

To think clearly and well is the first step to
knowing anything, and, until that has been
taken, all others are useless. Especially in the
work we perform, in the business we man-
age, in the various duties of domestic, social,
and political life, and in the knowledge we
gain or the opinions we hold, is the art of
thinking well essential.

A World of Good.—One of the most popu-
lar medicines now before the American pub-
lic is Hop Bitters. You see it everywhere.
People take it with good effect. It builds
them up. It is not pleasant to the taste as
some Bitters, as it is not a whiskey drink. It
is more like the old-fashioned bone-set tea,
that has done so much of good. If you don't
feel just right, try Hop Bitters.—Nunda News.

You will not be sorry for hearing before
judging, for holding an angry tongue, for
stopping the ears of a tale-bearer, for disbe-
lieving most evil reports, for being kind to
the distressed, for being patient toward ev-
erybody, for doing good to all men, for ask-
ing pardon for all wrongs, for speaking evil
of no one, for being courteous to all.

More than half of our mental troubles in
this world arise from a disordered stomach.
The digestive organs being out of order, the
blood is vitiated and the whole system be-

comes weakened and debilitated. It is less
trouble to keep the system in order, than to
put it in order after it has become deranged
by disease. To keep up the healthy tone of
the digestive organs we know of nothing so
good and effective as the celebrated Home
Sustaining Cordial.

A look of kind Truth and a word of Good
Will

Are the magical helps on Life's road;
With a mountain to travel, they shorten the
hill,
With a burden they lighten the load.

So stranger and Neighbor, though Sorrow and
Labor
On each of our pathways may fall,
While Love carols aloud like a lark in a
cloud,
There is Beauty and Joy for us all.

Wind and thunder have rolled, yet the wheat-
ears of gold,
And the red grapes shine glowing together;
So should spirits unite in the heart's harvest
light,<

The Stock Yards.

Weekly Review of the Live Stock Market.

WEDNESDAY, Aug. 15, 1883.
Receipts and shipments for 24 hours ending at 11 a. m., to-day.

	Cattle	Hogs	Sheep	Horses and Mules
Receipts.....	2379	3221	2848	120
Shipments.....	713	1735	862	39

CATTLE—The movement to-day was slow at the start, buyers being rather scarce and the supply unusually small for the day. The quality on sale were somewhat improved, grass cattle especially showing an improvement, there was still a very full supply of this native cows and heifers, and these continued to rule weak, though no lower. Indeed if anything prices all round were steadier, and for natives and Texans of good qualities were maintained at strong previous prices, the latter when in good flesh and of \$500 to \$600 lbs. bringing preference to natives of the same weight. Trading during the fore part of the day was to local dealers mostly, but later Eastern and interior buyers commenced operating and in their combined purchases succeeded in about clearing up the arrivals. Representative sales:

21 native cows—steers.....	842	\$2.75
20 Texas butchers.....	812	3.25
19 native cows—steers.....	815	3.75
21 native cows—steers.....	901	3.75
22 native cows—steers.....	912	3.75
20 native cows—steers.....	912	3.75
18 native cows—steers.....	912	3.75
20 Texas butchers.....	912	3.75
20 native cows—steers.....	912	3.75
21 Texas butchers.....	912	3.75
22 Texas butchers.....	912	3.75
20 Texas butchers.....	912	3.75

HOGS—Active and higher with a brisk demand for light weights from shippers who took all they could get at an advance of 5c to 10c, sales being made at \$5.50 to \$5.75. Heavy weights were slow, and only a few changed hands. City butcher took few at \$5.50 to \$5.75, and small sales of medium weights to shippers at \$5.00 to \$5.50 rough and culls \$4.50 to \$5.00. The offerings were small and soon cleared up. Sales:

21.....264.....\$4.80	42.....103.....\$5.70
20.....271.....5.20	27.....276.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00
21.....284.....5.15	23.....286.....5.00

THURSDAY, Aug. 14, 1883. Receipts and shipments for 24 hours ending at 11 a. m., to-day.

	Cattle	Hogs	Sheep	Horses and Mules
Receipts.....	1597	2334	3363	200
Shipments.....	425	1642	120	127

CATTLE—There was no improvement in this market this morning, on the contrary prices if anything were weaker and the trade generally slow. Early arrivals were light, and salesmen looked forward to a better market. But buyers of all classes were backward about taking hold except at their own figures, and the arrivals increasing considerably, a weakness was noticed which gave promise of developing into a further decline in values before the market closed. During the most of the day, however, transactions were made at about the same rates current the day previous, and only for the unexpected run of first cattle, the most of them by the way being Texans and Indians they would have been maintained. The representative sales were as follows:

24 Indian butchers.....	808	\$3.85
22 Indian butchers.....	836	3.90
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15
22 Indian butchers.....	839	4.15

HOGS—The movement was slow to-day as there was but little demand except from shippers of Yorkers, who bought all that were offered at \$5.00 to \$5.25 these figures although stronger were no higher than those of the day before. Heavy weights of all kinds were a drag and it was found almost impossible to sell them, so very indifferent were buyers. A few changed hands during the earlier hours at \$4.80 to \$5.25 for common rough to choice. Fortunately the arrivals were small, only about twenty cars all told being received and these by the hour of noon were pretty well cleared up, at the above figures. Good to extra butchers were quoted at \$5.15 to \$5.45, and skins, culls and throwouts \$4.50 to \$4.75. Representative sales:

descriptions would sell readily.

MONDAY, Aug., 13, 1888

Receipts and shipments for forty-eight hours ending at 11 a. m., to-day.

	Cattle	Hogs	Sheep	Horned and mixed
Receipts.....	2319	3353	1379	
Shipments.....	260	1220	150	

CATTLE—There was a very fair run of both native and grass cattle and under a very liberal inquiry from local and interior buyers

SHEEP—Unchanged and quiet. Common and inferior dull and weak, but good of all descriptions would sell readily.

MONDAY, Aug. 13, 1883. Receipts and shipments for forty-eight hours ending at 11 a. m., to-day.

	Cattle	Hogs	Sheep	Horses and Mules
Receipts.....	2319	3353	1379	52
Shipments.....	230	1220	150	218

CATTLE—There was a very fair run of both native and grass cattle and under a very liberal inquiry from local and interior buyers a good movement was had, but at lower prices only. Trading was slow at the outset, but when the reduction was finally made buyers took hold freely. Good fair natives there was no change in as sellers refused all offers, thinking they could do better by holding them over. Texans and Indian cattle sold at 10c to 15c off to common natives and mixed descriptions at 25c lower. Representative sales:

19 native cows.....	936	\$4.60
44 native cows—steers.....	877	3.80
11 native cows—steers.....	870	3.65
16 native cows—steers.....	890	3.75
36 Indian butchers.....	890	3.75
24 Indian butchers.....	848	3.90
21 Indian butchers.....	912	4.15
21 Indian butchers.....	912	4.15
21 Indian butchers.....	912	4.15
21 Indian butchers.....	912	4.15
21 Indian butchers.....	912	4.15

FRIDAY, Aug. 10, 1883. Receipts and shipments for 24 hours ending at 11 a. m. to-day.

	Cattle	Hogs	Sheep	Horses and Mules
Receipts.....	1273	1703	1905	125
Shipments.....	613	1910	1050	2

CATTLE—Offerings were small and, with a good demand from the few buyers present, soon disposed of at very satisfactory prices. Good cattle of all description was scarce, the most of the offerings consisting of mixed cows and steers or heifers. The number of grass Texans and Indians was small and there being a very fair inquiry for this description they sold readily at about the same rates as were current last week. Altogether the market in a general way was most satisfactory, and prices at the close were strong and quite bullish in tendency. Representative sales:

24 Indian cows—steers.....	904	\$4.00
21 native cows—steers.....	843	3.60
24 Indian cows—steers.....	752	3.75
15 native cows—steers.....	852	3.80
10 native cows—steers.....	847	3.75
46 southwest steers.....	840	4.12 1/2
46 Indian cows—steers.....	840	3.80
19 Indian butchers.....	810	4.15
17 native steers.....	1021	4.75
18 southwest cows—steers.....	813	3.75
15 southwest cows—steers.....	842	3.50
15 native mixed.....	763	3.50
19 native mixed.....	998	4.00

HOGS—The market experienced a boom in prices this morning. Salesmen had the whip-hand and refused to sell except at their figures which were fully 25c higher than the rates current the day before. Buyers were compelled to pay these figures although they did so with great reluctance; they wanted hogs however and there was no other way out. Sales of lights were large at \$5.00 to \$5.25. Heavies were slow and but few changed hands at \$5.45 to \$5.50 for packing, and \$5.00 to \$5.25 for butchers weights. Skins and culls \$4.75 to \$5.00. Representative sales:

16.....205.....\$6.15	19.....199.....\$6.15
18.....209.....6.15	20.....204.....6.15
41.....210.....6.20	20.....210.....6.20
40.....210.....6.20	40.....210.....6.20
40.....220.....5.85	74.....198.....5.75
33.....148.....5.40	22.....201.....6.10
27.....197.....6.10	15.....198.....6.10
12.....185.....6.25	35.....163.....6.10
37.....202.....6.25	60.....201.....6.10
59.....237.....5.70	51.....234.....5.60
62.....257.....5.60	61.....234.....5.60

SHEEP—Quiet but unchanged; demand fair, common to good \$2.50 to \$2.60; prime \$2.60 to \$2.75; stockers \$2.25 to \$2.50; Texans \$2.75 to \$3.00; lambs \$4.75 to \$5.25. Sales:

GENERAL MARKET.

Flour had a more active market at vi. tually

GENERAL MARKET.

Flour had a more active market at virtually unchanged prices. Some interest has been manifested within a few days, but views of buyers were not altogether satisfactory to sellers and but few sales have been heard of. A lot of 2,000 sacks family sold last week, and 500 sacks fancy yesterday, but both transactions were on reserved terms. Yesterday's sales included 5,000 barrels. Grades below XX not accurately quotable. Market bids for others as follows:

XX.....	\$2.20
XXX.....	3.50
Family.....	4.00
Choice.....	4.70
Fancy.....	5.25

WHEAT—Receipts for 48 hours of course occasioned an accumulation, but averaged unimportant difference from previous daily amounts, showing that there is not yet any freer movement to market. The shipping movement by rail continues steady, but this mainly comprises No. 3 red winter which has for some time been in demand from milling points East, and yesterday there was a good order demand for No. 4 winter. The stock of wheat in elevators is still showing an increase—the report for yesterday morning showing 1,076,188 bushels, against 1,028,343 Saturday morning, and 851,378 bushels Saturday night week. The stock of No. 2 red in elevators yesterday morning was 82,458 bushels against 79,945 Saturday morning, and of No. 3 red 86,577 bushels against 89,419 bushels same date. The grade market was at an advance, but both No. 3 and No. 4 closed off the former at Saturday's closing but No. 3 and No. 4 above. The sample market opened tame and unchanged for milling stock, but strengthened later and closed firm. Futures were lower, depressed by large receipts and declines elsewhere, and unsettled by discouraging reports from the Eastern money and stock markets. But the feeling here was cautious and there was little free selling, so that prices ruled very irregular. We quote No. 2 red winter, cash 1.06 1/2, No. 3, cash 1.01, No. 4, 94 1/2.

CORN—Receipts were large, but were the accumulation of two days, and would average only about the daily receipts of the past week. The stock of all grades in elevators yesterday morning, in all of this 545,352 bushels were No. 2 mixed, against 529,189 last Saturday night. There was an active market for No. 2 mixed, and an active export buying and for covering shorts on maturing contracts, and sales included 75 cars and 25,000 bushels in round lots; and other grades were in light movement—No. 2 white-mixed unchanged, and rejected lower, but firmer at close. Offerings of sample lots of white and St. Charles were large, but with an attending active milling demand, the market looked strong. Futures were weakened by reports of lower markets elsewhere and more sellers than buyers, and there was more option business done than any day for a week, and largely more than Saturday, as shown by the following comparison: No. 2 cash selling for 46, No. 2 white mixed cash 40 1/2, OATS—No. 2 cash 25 1/2, August selling higher.

HAY—General condition of market without any change whatever—there being an urgent and unsupplied demand for choice to fancy old timothy, while new timothy and mixed ruled dull under heavy offerings; prairie active and steady but market in favor of buyers. Sales: East trks—2 cars prime new mixed at \$10; new timothy \$11; old at same; 2 choice old timothy \$15. This sale—1 car prime choice old timothy; 2 do \$8 1/2; 6 choice do \$9; 2 fancy do \$9 50; 1 car new mixed and 1 common old do at \$10; 1 new mixed \$11; 1 prime old timothy \$14; 1 fancy do at \$18.

HEMP—In demand; scarce. Undressed \$7.50 to \$10 a ton; dressed at 6 1/2 to 7 1/2 c; shorts 5 1/2 to 6 c; hatched tow at 7 1/2 to 8 c; break tow 3 1/2 to 4 c.

BUTTER—No change to note in the condition of this market—steady and unchanged for choice stock; medium and low grades dull as ever—nominal. Sales were at 19c to 20c for choice to fancy creamery and 21c for sections; seconds at dairy rates; dairy at 15c to 16c for choice to fancy; fair to good 10c to 12c; common 8c to 10c; country packed slow; choice at 10c to 11c; common at 5c to 7c.

fair to good \$1.50 to \$1.75, choice \$2 and fancy large \$2.25. Old chickens—Cocks \$2.75 to \$3.00, mixed \$2.15 to \$2.25, hens \$3.40 to \$3.50; spring ducks \$2.50 to \$2.75.

GAME—Steady. Woodcock at \$5 and wood duck at \$2.25.

POTATOES—Offerings (all of near-by growth) were plentiful, and sold lower, mainly at 30c to 32c; consigned lots nominal, at 20c to 25c.

ONIONS—Dull and dragging; and to sell well with any freedom lower prices would have been necessary. About 150 lbs red sold at \$1.60 to \$1.65, and small sacked lot yellow at 55c per bu. We quote: Sacked at 25c to 40c for Illinois and Missouri growth, to 55c to 60c per bu for sound Iowa—latter in bbls at \$1.60 to \$1.70.

SWEET POTATOES—Lower. Bermuda, (home-grown) sell at \$1.40 to \$1.50 loose, Southern yams at \$2 per bbl.

CABBAGE—Selling in shipping order at \$2 per crate.

TOMATOES—Home-grown at 30c to 40c per bu loose for ripe, 75c per bu box in shipping order for green.

WHITE BEANS—Finner. Country \$1.40 to \$1.50. Eastern (jobbing only) screened medium \$2.20, do navy \$2.30 to \$2.40, hand-picked medium \$2.30 to \$2.35, navy \$2.40 to \$2.45.

APPLES—Although receipts were not so heavy, the market was still glutted—mainly with fruit entirely unfit for shipping; nearly every lot on sale was either badly mixed or of inferior quality—much was full fruit prematurely picked, hence too green, besides considerable was packed too long and arrived damaged in consequence; in short, practically no sale for anything save choice straight varieties, in prime shipping condition. We quote: Choice at \$1.75, fancy worth more, fair \$1.25 to \$1.50, inferior 75c to \$1. Sales: 3 cars part E. side at \$1.25, 300 bbls in lots at 75c to \$1.25 for soft to \$1.25 to choice.

PEACHES—Offerings small, principally of inferior fruit which sells slowly; choice stock scarce and wanted. Sales of Southern Illinois at 35c to 40c 1/2 bu box for hard and green, 50c to 60c for fair, 75c to 90c for choice, \$1.25 to \$1.50 for Crawford, Arkansas, Texas and Mississippi small clings and seedling free stones at 40c to 60c; Texas choice to fancy \$1 to \$1.50.

PEARS—Bartlett sold lower, under freer receipts, 20 bbs at 90c, 100 at \$1.15 to \$1.10; common varieties dull at 50c to 75c 1/2 bu box—some in bbls at \$3 1/2 bbl.

WHORTLEBERRIES—In request at \$3 per 6-gal case.

CRAB APPLES—Dull at 30c to 40c 1/2 bu box.

HONEY—Slow sale. Choice \$1.50 to \$1.60.

CALIFORNIA FRUITS—We quote: Pears at \$1.50 to \$1.65 and plums at \$2.75 to \$3; grapes \$2.75 to \$3.00 case.

DRIED FRUIT—New apples, the only kind offering, were in active demand and firmer, 375 pkgs selling mainly at 6 1/2 c. We quote: Apples—prime 6 1/2 c, fair 6c, sliced 6 1/2 c, No. 1 evaporated 11c to 12c, No. 2 do 9c to 10c; peaches—prime halves, at 6c, mixed 5 1/2 c—all old, wormy, very dark, or inferior fruit proportionately less.

PLUMS—Damson scarce and in demand at \$1.00 to \$1.25 1/2 bu box; Chickasaw sold at 50c to 60c.

WATERMELONS—Lower, under large offerings. Car lots on track sell at \$8 to \$10 per car. Jobbing sales at \$6 to \$15 per 100, according to size and kind.

CANTALOUPE—Sold lower and slowly at extreme range of 50c to \$1.25 per doz.—Latter for choice white Japan.

GRAPES—In limited supply and demand at steady prices. Hartford 50c; Ives seedling 75c; Concord 75c; Delaware 10c to 12 c.

GRASS SEED—Quiet. None offering. We quote: Spot seeds (nominal); German millet 30c to 40c; common millet 30c to 40c; Hungarian 40c to 60c; timothy \$1.45 to \$1.50; clover 75c to 80c; redtop 40c to 50c.

FLAXSEED—Lower and tending down, with sales of 14 cars spot and 2 cars August at \$1.28 to \$1.25 bid Sept.

COTTON SEED—Salable at \$16 1/2 ton, Sept. delivery.

HEMP SEED—Quiet at \$1.35 to \$1.50; prime cleaned worth more.

CASTOR BEANS—None offering; nominal; \$1.47 1/2 bid for prime.

WHEAT—Slow sale. Choice new quotable in lots at 7 1/2 c for strained or extracted and 14c for comb. Jobbing sales of choice in fancy packages more. Old or inferior nominal.

BROOM CORN—Dead dull; nominal. We quote: Choice, sliced, etc., 1 1/2 to 2 1/2 c; prime 3 1/2 c, long green 1 1/2 to 2 c.

WOOL—Quiet, but steady, in sympathy with Eastern markets, and the offerings are quite light. We quote: Tub-washed—choice \$1.50, fair 1 1/2 to 2 c, dingy and low 25c to 28c; unwashed—choice bright medium 2 1/2 to 2 1/2 c, fair do 2 1/2 to 2 c, combing (1 1/2 to 2 c) 2 1/2 c, low grades 16c to 18c; bright light fine 2 1/2 to 2 c, heavy do 16c to 18c; Kansas—choice bright medium 1 1/2 to 2 c, good do 1 1/2 to 2 c, heavy do 1 1/2 to 2 c; fine 1 1/2 c, carpet 1 1/2 to 1 1/2 c, black, burry and cottoned sold at 10c to 12c less than the above figures. Sales: Unwashed—70 bbs in small lots at 15c to 16c; tub-washed 40 bbs at 15c.

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Much has been said of this wonderful place, but one can hardly realize what it is without visiting it. The name, Nature's Wonderland, it well deserves—some of the most wonderful cures having been made by its waters. Rolling out of the mountains in vast quantities, these glorious waters seem to extend a helping hand to all, and invite you to accept of their life-giving qualities. Hot as they are, a more pleasant drink cannot be found, and after having bathed in them one feels much refreshed.

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